

COURSE DESCRIPTIONS

EXPLANATION OF COURSE DESCRIPTIONS

Course descriptions listed in this catalog are for Wiregrass Georgia Technical College students enrolled in degree, diploma, or technical certificate of credit programs, and are current at the time of printing. Any updated course information may be found on the WGTC website. Courses in this catalog are arranged alpha-numerically by four-letter course prefix and then course number. Course information will include the course title, credit hours, weekly contact hours, pre/co-requisites, and the quarter course equivalencies.

*Pre-requisites must be taken before the listed course. Co-requisites may be taken with the listed course..

ACCT 1100 - FINANCIAL ACCOUNTING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the basic financial accounting concepts of the complete accounting cycle and provides the student with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts, the accounting cycle for a personal service business, the accounting cycle for a merchandising business, inventory, cash control and receivables. Laboratory work demonstrates theory presented in class.

Quarter Course Equivalency: (ACC 1101 or ACC 101) and (ACC 1102 or ACC 102)

ACCT 1105 - FINANCIAL ACCOUNTING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): ACCT 1100

Co-requisite(s): None

Introduces the intermediate financial accounting concepts that provide the student with the necessary skills to maintain a set of books for a partnership and corporation. Topics include: Fixed and Intangible Assets, Current and Long-Term Liabilities (Notes Payable), Payroll, Accounting for a Partnership, Accounting for a Corporation, Statement of Cash Flows, and Financial Statement Analysis, Laboratory work demonstrates theory presented in class.

Quarter Course Equivalency: (ACC 1102 or ACC 102) and (ACC 1103 or ACC 103)

ACCT 1110 - MANAGERIAL ACCOUNTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): ACCT 1105

Co-requisite(s): None

Emphasizes the interpretation of data by management in planning and controlling business activities. Topics include Managerial Accounting Concepts, Manufacturing Accounting using a Job Order Cost System, Manufacturing

Accounting using a Process Cost System, Cost Behavior and Cost-Volume-Profit, Budgeting and Standard Cost Accounting, Flexible Budgets, Standard Costs and Variances, and Capital Investment Analysis and Budgeting. Laboratory work demonstrates theory presented in class.

Quarter Course Equivalency: [(ACC 1103 or ACC 103) and ACC 2158] OR [(ACC 1103 or 103) and ACC 2150]

ACCT 1115 - COMPUTERIZED ACCOUNTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): ACCT 1100, COMP 1000

Co-requisite(s): None

Emphasizes operation of computerized accounting systems from manual input forms. Topics include: company creation (service and merchandising), chart of accounts, customers transactions, vendors transactions, banking activities, merchandise inventory, employees and payroll, and financial reports. Laboratory work includes theoretical and technical application.

Quarter Course Equivalency: ACC 1104 or ACC 104

ACCT 1120 - SPREADSHEET APPLICATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): COMP 1000

Co-requisite(s): None

This course covers the knowledge and skills to use spreadsheet software through course demonstrations, laboratory exercises and projects. Topics and assignments will include: spreadsheet concepts, creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually and collaborating and securing data.

Quarter Course Equivalency: (ACC 1106 or ACC 106) and (ACC 2160 or CIS 2128 or CIS 128)

ACCT 1125 - INDIVIDUAL TAX ACCOUNTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Provides instruction for the preparation of individual federal income tax returns. Topics include: taxable income, income adjustments, schedules, standard deductions, itemized deductions, exemptions, tax credits, and tax calculations.
Quarter Course Equivalency: ACC 1151 or ACC 151

ACCT 1130 - PAYROLL ACCOUNTING

Credit Hours: 3
Weekly Contact Hours: Lecture - 2 Lab - 2
Pre-requisite(s): ACCT 1100
Co-requisite(s): None
Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include: payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers, and analyzing and journalizing payroll transactions.
Quarter Course Equivalency: ACC 1152 or ACC 152

ACCT 1140 - SMALL BUSINESS ACCOUNTING

Credit Hours: 3
Weekly Contact Hours: Lecture - 2 Lab - 2
Pre-requisite(s): Program Admission
Co-requisite(s): None
Introduces the basic concepts of the complete accounting cycle and provides the student with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts, the accounting cycle and accounting for a personal service business, the accounting cycle and accounting for a merchandising enterprise, and cash control. Laboratory work demonstrates theory presented in class.
Quarter Course Equivalency: SBM 107

ACCT 1145 - SMALL BUSINESS ACCOUNTING AND FINANCE

Credit Hours: 3
Weekly Contact Hours: Lecture - 2 Lab - 2
Pre-requisite(s): ACCT 1140
Co-requisite(s): None
Applies the basic principles of accounting to specific account classifications and emphasizes a fundamental understanding of cash flows and analysis of financial statements. Topics include: receivables, plant assets, payables, preparation of sales tax returns, creating a statement of cash flows, and analysis and interpretation of financial statements. Laboratory work demonstrates theory presented in class.
Quarter Course Equivalency: SBM 108

ACCT 2100 - ACCOUNTING INTERNSHIP I

Credit Hours: 4
Weekly Contact Hours: Lecture - 0 Lab - 12
Pre-requisite(s): All Non-Elective Required Courses
Co-requisite(s): None
Introduces the application and reinforcement of accounting and employability principles in an actual job setting. Acquaints the student with realistic work situations and provides insights into accounting applications on the job. Topics include appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and development of productivity. The half-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, and weekly documentation or seminars and/or other projects as required by the instructor.
Quarter Course Equivalency: ACC 2167 or ACC 107

ACCT 2105 - ACCOUNTING INTERNSHIP II

Credit Hours: 8
Weekly Contact Hours: Lecture - 0 Lab - 24
Pre-requisite(s): All Non-Elective Required Courses
Co-requisite(s): None
Introduces the application and reinforcement of accounting and employability principles in an actual job setting. Acquaints the student with realistic work situations and provides insights into accounting applications on the job. Topics include: appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and development of productivity. The full-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, and weekly documentation or seminars and/or other projects as required by the instructor.
Quarter Course Equivalency: ACC 2168 or ACC 108

ACCT 2150 – PRINCIPLES OF AUDITING

Credit Hours: 3
Weekly Contact Hours: Lecture -3 Lab -0
Pre-requisite(s): ACCT 1105
Co-requisite(s): None
Introduces the student to the auditors responsibilities in the areas of professional standards, reports, ethics and legal liability. Students learn about the technology of auditing; evidence gathering, audit/assurance processes, internal controls, and sampling techniques. The specific methods of auditing the revenue/receipts process, disbursement cycle, personnel and payroll procedures, asset changes, and debt and equity are learned. Finally procedures related to attest engagements and internal auditing are reviewed.

ACCT 2155 - PRINCIPLES OF FRAUD EXAMINATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides instruction of the basic principles and theories of occupational fraud. Topics include: fraud concepts, skimming, cash larceny, billing schemes, check tampering, payroll schemes, expense reimbursement schemes, register disbursement schemes, non-cash assets fraud, corruption schemes, and accounting principles and fraud.

Quarter Course Equivalency: ACC 2207 or ACC 207

ACRP 1000 - INTRODUCTION TO AUTO COLLISION REPAIR

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 1

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course provides instruction in procedures and practices necessary for safe and compliant operation of auto collision repair facilities. It introduces the structural configuration and identification of the structural members of various unibodies and frames used for automobiles as well as equipment and hand tools used in collision repair tasks.

Quarter Course Equivalency: (ACR 1000 or ACR 100) and (ACR 1010 or ACR 101) and (ACR 1020 or ACR 102)

ACRP 1005 - AUTOMOBILE COMPONENT REPAIR AND REPLACEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): ACRP 1000

This course provides instruction in removal and replacement methods of a variety of non-structural cosmetic and safety features of the automobile as well as bolt-on body panels.

Quarter Course Equivalency: (ACR 1070 or ACR 107) and (ACR 1280 or ACR 128)

ACRP 1010 - FOUNDATIONS OF COLLISION REPAIR

Credit Hours: 5

Weekly Contact Hours: Lecture - 2 Lab - 7

Pre-requisite(s): None

Co-requisite(s): ACRP 1000, ACRP 1005

This course introduces the materials, tools, and operations required to repair minor collision damage and it provides instruction in non-metallic auto body repair techniques.

Quarter Course Equivalency: (ACR 1050 or ACR 105) and (ACR 1100 or ACR 110)

ACRP 1015 - FUNDAMENTALS OF AUTOMOTIVE WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): ACRP 1000

This course introduces welding and cutting procedures used in auto collision repair. Emphasis will be placed on MIG welding techniques through a variety of different procedures.

Quarter Course Equivalency: ACR 1060 or ACR 106

ACRP 1017 - MECHANICAL AND ELECTRICAL SYSTEMS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): ACRP 1000

This course introduces suspension and steering, braking, and drive train systems found on vehicles typically requiring repair of damages incurred through automobile collisions.

ACRP 1018 - MECHANICAL AND ELECTRICAL SYSTEMS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): ACRP 1000

This course introduces the various mechanical and electrical systems found on vehicles typically requiring repair of damages incurred through automobile collisions.

Quarter Course Equivalency: (ACR 1040 or ACR 104) and (ACR 1270 or ACR 127)

ACRP 1019 - MECHANICAL AND ELECTRICAL SYSTEMS II

Credit Hours: 5

Weekly Contact Hours: Lecture - 2.5 Lab - 4.5

Pre-requisite(s): Program Admission

Co-requisite(s): ACRP 1000

This course introduces the various electrical, heating and AC, engine cooling, fuel and intake, and restraint systems found on vehicles typically requiring repair of damages incurred through automobile collisions.

ACRP 2000 - INTRODUCTION TO REFINISHING

Credit Hours: 5

Weekly Contact Hours: Lecture - 1 Lab - 9

Pre-requisite(s): Provisional Admission

Co-requisite(s): ACRP 1000, ACRP 1010

This course introduces the hand and pneumatic tools, spray guns, materials and procedures involved in preparing automobile bodies for refinishing. Typical methods and

techniques used in detailing a refinished automobile surface are also introduced in this course.

Quarter Course Equivalency: (ACR 1300 or ACR 130) and (ACR 1320 or ACR 132) and (ACR 2360 or ACR 136)

ACRP 2001 - INTRODUCTION TO AUTO PAINTING AND REFINISHING

Credit Hours: 5

Weekly Contact Hours: Lecture – 3 Lab –4

Pre-requisite(s): Provisional Admission

Co-requisite(s): ACRP 1000, ACRO 1010

This course covers the safety precautions followed during the painting and refinishing processes used in a shop during collision repairs. Basic surface preparations will be discussed and practiced. Spray gun types and basic operations will also be introduced.

ACRP 2002 - PAINTING AND REFINISHING TECHNIQUES

Credit Hours: 5

Weekly Contact Hours: Lecture – 2.5 Lab – 4.5

Pre-requisite(s): Provisional Admission

Co-requisite(s): ACRP 1000, ACRO 2001

This course covers the fundamental refinishing tasks of mixing, matching and applying various types of automotive paints. Paint defect causes and cures will be examined in depth. Final delivery detailing and tasks will also be practiced and discussed.

ACRP 2005 - FUNDAMENTALS OF REFINISHING I

Credit Hours: 5

Weekly Contact Hours: Lecture - 2 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): ACRP 1000, ACRP 2000

The course introduces the spray gun equipment, materials, and techniques used in the application of special paints. Emphasis will be placed on automotive refinishing theories and procedures.

Quarter Course Equivalency: (ACR 1320 or ACR 132) and (ACR 2340 or ACR 134)

ACRP 2008 - FUNDAMENTALS OF REFINISHING II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): ACRP 2005

This course further expands on the spray gun equipment, materials, and techniques used in the application of special paints to automobile finishes introduced in Fundamentals of Refinishing I. Emphasis will be placed on blending, tinting, and matching colors.

Quarter Course Equivalency: ACR 2350 or ACR 135

ACRP 2009 - REFINISHING INTERNSHIP

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): ACRP 1000

Co-requisite(s): ACRP 2001, ACRP 2002

Provides occupation-based learning opportunities for students pursuing the Paint and Refinishing specialization. Students will be mentored by qualified professional technicians as they experience working in the Automotive Collision Repair profession in an industry standard commercial repair facility or industry standard simulated on-campus facility. Topics include: sanding, priming, and paint preparation; special refinishing applications; urethane enamels; tint and match colors; and detailing.

Quarter Course Equivalency: ACR 2370 or ACR 137

ACRP 2010 - MAJOR COLLISION REPAIR

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): ACRP 1000

Co-requisite(s): ACRP 1005

This course introduces procedures and resources used in the identification and assessment of automotive collision damages. This course provides instruction on the hydraulic systems and for the diagnosis, straightening, measuring and alignment of automobile frames and bodies.

Quarter Course Equivalency: (ACR 1090 or ACR 109) and (ACR 1200 or ACR 120) and (ACR 1210 or ACR 121) and (ACR 2240 or ACR 122)

ACRP 2015 - MAJOR COLLISION REPLACEMENTS

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): ACRP 1000

Co-requisite(s): ACRP 2010

This course provides instruction in conventional/unibody automobile body structural panel repairs emphasizing a variety of removal and replacement techniques.

Quarter Course Equivalency: (ACR 2250 or ACR 125) and (ACR 2260 or ACR 126)

ACRP 2019 - MAJOR COLLISION REPAIR INTERNSHIP

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): ACRP 1000

Co-requisite(s): ACRP 2010, ACRP 2015

Provides occupation-based learning opportunities for students pursuing the Major Collision Repair specialization. Qualified professional technicians will mentor students as they experience working in the Automotive Collision Repair profession in an industry standard commercial repair facility or industry standard simulated on-campus facility.

Topics include: conventional frame repair, unibody damage identification and analysis, unibody measuring and fixturing systems, unibody straightening systems and techniques, unibody welding techniques, unibody structural panel repair and replacement, conventional body structural panel repair, unibody suspension and steering systems, and bolt-on body panel removal and replacement.

Quarter Course Equivalency: ACR 1290 or ACR 129

ACRP 2270 - INTRODUCTION TO THE ADVANCED SHEET METAL REPAIR INDUSTRY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This class teaches the proper terminology, sheet metal selection, and tools used by the Advanced Sheet Metal Repair Industry. Topics included are: advanced sheet metal repair terminology, sheet metal selection, and tools of the advanced sheet metal industry.

Quarter Course Equivalency: ACR 2270

ACRP 2272 - BENDS, CURVES AND WELD-ON PANELS

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course provides instruction to identify and demonstrate the procedures to fabricate simple and compound bends and curves, the tools used to create them, and the proper procedures to install weld-on panels.

Quarter Course Equivalency: ACR 2272

ACRP 2274 - BODY CONSTRUCTION

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): None

Co-requisite(s): None

Provides instruction in identifying and performing techniques required for the construction of major body panels. The student's performance will be assessed by written examination, and lab projects.

Quarter Course Equivalency: ACR 2274

ACRP 2276 - CHOPPING TOPS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 7

Pre-requisite(s): None

Co-requisite(s): None

This course provides instruction in identifying and performing the techniques required for chopping tops on

custom vehicles. Topics include: evaluation of vehicles, preparation of vehicles, and chopping tops.

Quarter Course Equivalency: ACR 2276

ACRP 2278 - FUEL TANKS

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course provides instruction in identifying and performing techniques required for the construction of fuel tanks. Topics include : pattern and fabrication of a fuel tank.

Quarter Course Equivalency: ACR 2278

ACRP 2280 - FRENCHING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

This course provides instruction in identifying and demonstrating the proper procedure for Frenching sheet metal body panels. Topics include: French in a pair of tail lights and license plate.

Quarter Course Equivalency: ACR 2280

ACRP 2282 - SECTIONING, PANCAKING, AND CHANNELING

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 7

Pre-requisite(s): None

Co-requisite(s): None

This course provides training for students to identify and perform the techniques required for sectioning and channeling custom vehicles. The student will be assessed by written examination and lab projects.

Quarter Course Equivalency: ACR 2282

AGRB 1100 - INTRODUCTION TO AGRIBUSINESS

Credit Hours: 1

Weekly Contact Hours: Lecture -1 Lab -0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces students to agribusiness. This is an agribusiness awareness and identification course consisting of various topics associated with the importance of agribusiness.

AGRB 1110 - AGRIBUSINESS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab -0

Pre-requisite(s): None

Co-requisite(s): None

Basic managerial concepts, procedures and techniques in agribusiness management. Importance is placed on planning, organizing, directing and controlling functions of management.

AGRB 2110 – FARM ORGANIZATION & MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab –0

Pre-requisite(s): None

Co-requisite(s): None

A study of farm programs and management for the purpose of determining methods to increase farm revenue. Emphasis will be placed on decision making and efficient use of resources.

AGRB 2130 – AGRICULTURAL POLICY

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab –0

Pre-requisite(s): None

Co-requisite(s): None

Local, state, national and international government policies affect agribusiness and rural economies. Policy alternatives aimed at solving problems for the food and agricultural industry are identified and evaluated.

AGRB 2140 – ISSUES OF AGRICULTURE AND NATURAL RESOURCES

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab –0

Pre-requisite(s): None

Co-requisite(s): None

Includes many practical aspects and techniques of soil and water conservation. Students learn the nature of water and the need for conservation practices

AIRC 1005 - REFRIGERATION FUNDAMENTALS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the basic concepts, theories, and safety regulations and procedures of refrigeration. Topics include an introduction to OSHA, safety, first aid, laws of thermodynamics, pressure and temperature relationships, heat transfer, the refrigerant cycle, refrigerant identification, and types of AC systems.

Quarter Course Equivalency: ACT 100 and IFC 100

AIRC 1010 - REFRIGERATION PRINCIPLES AND PRACTICES

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): AIRC 1005

This course introduces the student to basic refrigeration system principles and practices, and the major component parts of the refrigeration system. Topics include refrigeration tools, piping practices, service valves, leak testing, refrigerant recovery, recycling, and reclamation, evacuation, charging, and safety.

Quarter Course Equivalency: ACT 101

AIRC 1020 - REFRIGERATION SYSTEM COMPONENTS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): AIRC 1005

This course provides the student with the skills and knowledge and skills to install, test, and service major components of a refrigeration system. Topics include compressors, condensers, evaporators, metering devices, service procedures, refrigeration systems and safety.

Quarter Course Equivalency: ACT 102

AIRC 1030 - HVACR ELECTRICAL FUNDAMENTALS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course provides an introduction to fundamental electrical concepts and theories as applied to the air conditioning industry. Topics include AC and DC theory, electric meters, electrical diagrams, distribution systems, electrical panels, voltage circuits, code requirements, and safety.

Quarter Course Equivalency: ACT 103

AIRC 1040 - HVACR ELECTRICAL MOTORS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): AIRC 1030 or IDFC 1011

This course provides the student with the skills and knowledge necessary for application and service of electric motors commonly used by the refrigeration and air conditioning industry. Topics include diagnostic techniques, capacitors, installation procedures, types of electric motors, electric motor service, and safety.

Quarter Course Equivalency: ACT 104

AIRC 1050 - HVACR ELECTRICAL COMPONENTS AND CONTROL

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

Provides instruction in identifying, installing, and testing commonly used electrical components in an air conditioning system. Topics include: pressure switches, transformers, other commonly used controls, diagnostic techniques, installation procedures, solid state controls, and safety.
Quarter Course Equivalency: ACT 105 and ACT 106

AIRC 1060 - AIR CONDITIONING SYSTEM APPLICATION AND INSTALLATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): AIRC 1010, AIRC 1030 or IDFC 1011

Provides instruction on the installation and service of residential air conditioning systems. Topics include: installation procedures, split-systems, add-on systems, packaged systems, system wiring, control circuits, and safety.
Quarter Course Equivalency: ACT 107 and ACT 108

AIRC 1070 - GAS HEAT

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): AIRC 1030 or IDFC 1011

Co-requisite(s): None

This course introduces principles of combustion and service requirements for gas heating systems. Topics include servicing procedures, electrical controls, piping, gas valves, venting, code requirements, principles of combustion, and safety.

Quarter Course Equivalency: ACT 110

AIRC 1080 - HEAT PUMPS AND RELATED SYSTEMS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): AIRC 1010, AIRC 1030 or IDFC 1011

Co-requisite(s): None

This course provides instruction on the principles, applications, and operation of a residential heat pump system. Topics include installation and servicing procedures, electrical components, geothermal ground source energy supplies, dual fuel, valves, and troubleshooting techniques.

Quarter Course Equivalency: ACT 111

AIRC 1090 - TROUBLESHOOTING AIR CONDITIONING SYSTEMS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): AIRC 1010, AIRC 1030 or IDFC 1011

Co-requisite(s): None

This course provides instruction on the troubleshooting and repair of major components of a residential air conditioning system. Topics include troubleshooting techniques, electrical

controls, air flow, the refrigeration cycle, electrical servicing procedures, and safety.

Quarter Course Equivalency: ACT 109

AIRC 2070 - COMMERCIAL REFRIGERATION DESIGN

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): AIRC 1090

Provides an increased level of concepts and theory beyond AIRC 1020. Students are introduced to more design theory in commercial refrigeration. Topics include: refrigeration heat calculation, equipment selection, refrigeration piping, codes, and safety.

Quarter Course Equivalency: ACT 208

AIRC 2080 - COMMERCIAL REFRIGERATION APPLICATIONS

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): None

Co-requisite(s): AIRC 1090

Introduces the application of fundamental theories and concepts of refrigeration. Emphasis will be placed on equipment application and installation procedures. Topics include: equipment application, installation procedures, cycle controls, energy management, and safety.

Quarter Course Equivalency: ACT 209

AIRC 2090 - TROUBLESHOOTING AND SERVICING COMMERCIAL REFRIGERATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): AIRC 1090

Continues to provide experience in maintenance techniques in servicing light commercial refrigeration systems. Topics include: system clearing, troubleshooting procedures, replacement of components, and safety.

Quarter Course Equivalency: ACT 210

ALHS 1010 - INTRODUCTION TO ANATOMY AND PHYSIOLOGY

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides a study of medical terminology and the basic study of structure and function of the human body. It provides an overview of the functions of each body system and the medical terminology associated with each system. This course is intended for students in non-medical programs

and is designed to provide medical terminology and basic knowledge of anatomy and physiology.

Quarter Course Equivalency: AHS 1010 or AHS 100

ALHS 1011 - STRUCTURE AND FUNCTION OF HUMAN BODY

Credit Hours: 5

Weekly Contact Hours: Lecture - 5 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Focuses on basic normal structure and function of the human body. Topics include general plan and function of the human body, integumentary system, skeletal system, muscular system, nervous and sensory systems, endocrine system, cardiovascular system, lymphatic system, respiratory system, digestive system, urinary system, and reproductive system.

Quarter Course Equivalency: AHS 1011 or AHS 101

ALHS 1040 - STRUCTURE AND FUNCTION OF THE HUMAN BODY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces a grouping of fundamental principles, practices, and issues common in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include: basic life support/CPR, basic emergency care/first aid and triage, vital signs, infection control/blood and air-borne pathogens.

Quarter Course Equivalency: AHS 104

ALHS 1060 - DIET AND NUTRITION FOR ALLIED HEALTH SCIENCES

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

A study of the nutritional needs of the individual. Topics include: nutrients, standard and modified diets, nutrition throughout the lifespan, and client education.

Quarter Course Equivalency: AHS 106 or AHS 103

ALHS 1090 - MEDICAL TERMINOLOGY FOR ALLIED HEALTH SCIENCES

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include:

origins (roots, prefixes, and suffixes), word building, abbreviations and symbols, and terminology related to the human anatomy.

Quarter Course Equivalency: AHS 109

AMCA 2110 - CNC FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission, MCHT 1011, MCHT 1012

Co-requisite(s): None

Provides a comprehensive introduction to computer numerical controlled (CNC) machining processes. Topics include: safety, Computer Numerical Control of machinery, setup and operation of CNC machinery, introduction to programming of CNC machinery, introduction to CAD/CAM.

Quarter Course Equivalency: MCA 211

AMCA 2130 - CNC MILL MANUAL PROGRAMMING

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): None

Co-requisite(s): AMCA 2110

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) milling machines. Topics include: safety, calculation for programming, program codes and structure, program run and editing of programs.

Quarter Course Equivalency: MCA 213

AMCA 2150 - CNC LATHE MANUAL PROGRAMMING

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): None

Co-requisite(s): AMCA 2110

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) Lathes. Topics include: safety, calculations for programming, program codes and structure, program run and editing of programs.

Quarter Course Equivalency: MCA 215

AMCA 2170 - CNC PRACTICAL APPLICATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): AMCA 2110, AMCA 2130, AMCA 2150

Co-requisite(s): None

Provides additional instruction in part holding and fixture design. Students will also gain additional experience in print-to-part development of CNC programming. Topics include:

safety, fixture design and manufacturing, and CNC part manufacturing.

Quarter Course Equivalency: MCA 217

AMCA 2190 - CAD/CAM PROGRAMMING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): AMCA 2110

Emphasizes the development of skills in computer aided design (CAD) and computer aided manufacturing (CAM). The student will design and program parts to be machined on computer numerical controlled machines. Topics include: hardware and software, drawing manipulations, tool path generation, program posting, and program downloading.

Quarter Course Equivalency: MCA 219

ARTS 1101 - ART APPRECIATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): ENGL 1101

Explores the visual arts and the relationship to human needs and aspirations. Students investigate the value of art, themes in art, the elements and principles of composition, and the materials and processes used for artistic expression. Well-known works of visual art are explored. The course encourages student interest in the visual arts beyond the classroom.

Quarter Course Equivalency: ART 1101 or ART 191

AUTT 1010 - INTRODUCTION TO AUTOMOTIVE TECHNOLOGY

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces basic concepts and practices necessary for safe and effective automotive shop operations. Topics include: safety procedures; legal/ethical responsibilities; general service; hand tools; shop organization, management, and work flow systems.

Quarter Course Equivalency: AUT 120 or AUT 156

AUTT 1020 - AUTOMOTIVE ELECTRICAL SYSTEMS

Credit Hours: 7

Weekly Contact Hours: Lecture - 2 Lab - 14

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

Introduces automotive electricity, emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, alternators and

regulators, lighting system, gauges, horn, wiper/washer, and accessories.

Quarter Course Equivalency: AUT 122 and AUT 124

AUTT 1021 - AUTOMOTIVE ELECTRICAL SYSTEMS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

Introduces automotive electricity, emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, and basic lighting systems.

Quarter Course Equivalencies: New

AUTT 1022 - AUTOMOTIVE ELECTRICAL SYSTEMS II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): AUTT 1021

Emphasizes the basic principles, diagnosis, and service/repair of alternators and regulators, advanced lighting systems, gauges, horn, wiper/washer, and accessories.

Quarter Course Equivalencies: New

AUTT 1030 - AUTOMOTIVE BRAKE SYSTEMS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

Introduces brake systems theory and its application to automotive systems and anti-lock brake system (ABS) to include ABS components and ABS operation, testing, and diagnosis. Topics include: hydraulic system diagnosis and repair; drum brake diagnosis and repair; disc brake diagnosis and repair; power assist units diagnosis and repair; miscellaneous brake components (wheel bearings, parking brakes, electrical, etc.) diagnosis and repair; test, diagnose, and service electronic brake control system.

Quarter Course Equivalency: AUT 130 and AUT 214

AUTT 1040 - AUTOMOTIVE ENGINE PERFORMANCE

Credit Hours: 7

Weekly Contact Hours: Lecture - 2 Lab - 13

Pre-requisite(s): AUTT 1020

Co-requisite(s): None

Introduces basic engine performance systems which support and control four stroke gasoline engine operations and reduce emissions. Topics include: general engine diagnosis, computerized engine controls and diagnosis, ignition system

diagnosis and repair, fuel and air induction, exhaust systems, emission control systems diagnosis and repair, and other related engine service.

Quarter Course Equivalency: AUT 128 and AUT 140 and AUT 218

AUTT 1041 - AUTOMOTIVE ENGINE PERFORMANCE I

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): AUTT 1020

Co-requisite(s): None

Introduces basic engine performance systems which support and control four stroke gasoline engine operations and reduce emissions. Topics include: general engine diagnosis, fuel and air induction, exhaust systems, PCV control system diagnosis and repair, and other related engine service.

Quarter Course Equivalencies: New

AUTT 1042 - AUTOMOTIVE ENGINE PERFORMANCE II

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): AUTT 1020, AUTT 1022

Co-requisite(s): None

Continues basic engine performance systems which support and control four stroke gasoline engine operations and reduce emissions. Topics include: computerized engine controls and diagnosis, ignition system diagnosis and repair, and advanced emission control systems diagnosis and repair.

Quarter Course Equivalencies: New

AUTT 1050 - AUTO SUSPENSION AND STEERING SYSTEMS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 7

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

Introduces students to principles of steering, suspension, wheel alignment, electronic steering, and electronic active suspension. Topics include: general suspension and steering systems diagnosis; steering systems diagnosis and repair; suspension systems diagnosis and repair; related suspension and steering service; wheel alignment diagnosis, adjustment and repair, wheel and tire diagnosis and repair.

Quarter Course Equivalency: AUT 132 and AUT 216

AUTT 1060 - AUTOMOTIVE CLIMATE CONTROL SYSTEMS

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): AUTT 1020

Co-requisite(s): None

Introduces the theory and operation of automotive heating and air conditioning systems. Students attain proficiency in inspection, testing, service, and repair of heating and air conditioning systems and related components. Topics include: a/c system diagnosis and repair; refrigeration system component diagnosis and repair; heating, ventilation, and engine cooling systems diagnosis and repair; operating systems and related controls diagnosis and repair; refrigerant recovery, recycling, and handling.

Quarter Course Equivalency: AUT 142

AUTT 1070 - AUTOMOTIVE TECHNOLOGY INTERNSHIP

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): AUTT 1010, AUTT 1020, AUTT 1030

Co-requisite(s): None

This elective course will provide the student with an opportunity to relate what they have learned in the classroom and lab to a real world situation either at a place of business or at a technical college. Under the supervision of an experienced ASE certified automotive technician or their instructor, the student will obtain a greater admiration and appreciation of the material learned in the classroom and lab. The internship will also serve the function of bridging the lessons learned at school and applying that to real world situations. The suitability of the work setting will be determined by having a conference with the automotive instructor and the prospective employer. The student will have the option to take the internship program at an approved place of employment or at the college if he or she wishes and perform all the live work duties of the service writer, parts department personnel, and technician to include writing the repair order, ordering parts (if applicable) and repairing the vehicle. Student must work a minimum of 150 hours during the semester to receive credit for this course.

Quarter Course Equivalency: AUT 220

AUTT 2010 - AUTOMOTIVE ENGINE REPAIR

Credit Hours: 6

Weekly Contact Hours: Lecture - 2 Lab - 10

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

This course introduces the student to automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques for both 2 cycle and 4 cycle internal combustion engines. Topics include general engine diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.

Quarter Course Equivalency: AUT 126

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UTT 2011 - AUTOMOTIVE ENGINE REPAIR I

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

This course introduces the student to automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques for both 2 cycle and 4 cycle internal combustion engines. Topics include general engine diagnosis; removal and reinstallation; basic cylinder heads and valve trains diagnosis and repair; and lubrication and cooling systems diagnosis and repair.

Quarter Course Equivalencies: New

AUTT 2012 - AUTOMOTIVE ENGINE REPAIR II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): AUTT 2011

This course continues automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques for both 2 cycle and 4 cycle internal combustion engines. Topics include advanced cylinder heads and valve trains diagnosis and repair; and engine blocks assembly, diagnosis and repair.

Quarter Course Equivalencies: New

AUTT 2020 - AUTOMOTIVE MANUAL DRIVE TRAIN AND AXLES

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): AUTT 1010

This course introduces basics of rear-wheel drive, front-wheel drive, and four-wheel drive drive line related operation, diagnosis, service and related electronic controls. Topics include: drive shaft and half shaft, universal and constant-velocity (CV) joint diagnosis and repair; ring and pinion gears and differential case assembly; limited slip differential; drive axle shaft; four-wheel drive/all-wheel drive component diagnosis and repair. Introduces basics of front and rear-wheel drive. Clutch operation, diagnosis and service is included. Electronic controls related to transmission/transaxles operation are discussed. Topics include: clutch diagnosis and repair; transmission/transaxles diagnosis and repair.

Quarter Course Equivalency: AUT 134 and AUT 138

AUTT 2030 - AUTOMATIC TRANSMISSION AND TRANSAXLES

Credit Hours: 5

Weekly Contact Hours: Lecture - 2 Lab - 7

Pre-requisite(s): AUTT 1020

Co-requisite(s): None

Introduces students to basic automatic transmission/transaxle theory, operation, inspection, service, and repair procedures as well as electronic diagnosis and repair. Topics include: general automatic transmission and transaxle diagnosis; in vehicle and off vehicle transmission and transaxle maintenance, adjustment and repair.

Quarter Course Equivalency: AUT 144 and AUT 210 and AUT 212

AUTT 2100 - AUTOMOTIVE ALTERNATIVE FUEL VEHICLES

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 1

Pre-requisite(s): AUTT 1020

Co-requisite(s): None

This course will give students the basic knowledge to understand Electric Drive Vehicles, Hybrid Electric Vehicles, and Alternative Fuel Vehicles. The course will cover components, operation, precautions, and diagnostics of BEV, HEV, Fuel Cell Vehicles, and other fuel vehicles. The student will become familiar with the unique hybrid systems and repair procedures on various hybrid vehicles. This course is a program elective which can be used as a substitute for AUTT 1070 (Internship).

Quarter Course Equivalency: New

BAFN 1100 - INTRODUCTION TO BANKING AND FINANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the student to the history, documents, and operational functions of the banking industry.

Quarter Course Equivalency: BAF 100

BAFN 1105 - BANK BUSINESS AND INFORMATION SYSTEMS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): MATH 1011 (diploma) OR MATH 1111 (degree)

Co-requisite(s): None

The course emphasizes basic calculator functions with problem solving, types of banking equipment, teller skills and duties and procedures for bank reconciliations.

Quarter Course Equivalency: BAF 114

BAFN 1110 - MONEY AND BANKING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

The course emphasizes the relevance of monetary instruments, financial intermediaries, and the central banks as they impact local, state, national, and international economics. Topics include: the history and evolution of financial institutions, monetary instruments and flow; and central banking, operations, and policies.

Quarter Course Equivalency: BAF 113

BAFN 1115 - PERSONAL FINANCIAL PLANNING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides knowledge and applications in the management of personal and consumer finance. Topics include: record keeping, budgeting, credit principles, investment principles, and forecasting.

Quarter Course Equivalency: BAF 115

BAFN 1300 - INTERNSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): BAFN 1110, ENGL 1010

Co-requisite(s): None

This course introduces the application and reinforcement of banking and finance and employability principles in an actual job placement or practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into banking and finances applications on the job. The occupation-based instruction is implemented through the use of written individualized training plans, written performance evaluations, required weekly seminars, and required practiced or on-the-job training.

Quarter Course Equivalency: BAF 132 and BAF 133

BAFN 2200 - FINANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ACCT 1100

Co-requisite(s): None

Provides an introduction to financial markets, institutions, and management in contemporary society. Emphasis is placed on developing an understanding of the financial markets in which funds are traded, the financial institutions participating in facilitating the trade of such funds, and the financial principles and concepts behind sound financial management. Topics include: financial systems of the United States, business finance management, and financing other sectors of the economy.

Quarter Course Equivalency: BAF 200

BAFN 2205 - REAL ESTATE FINANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

Emphasizes the relevance of land value, legal titles, legal descriptions, types of real estate finance, the leverage of real estate, the bank funding requirement, mortgage amortizations, financial theory, and real estate markets.

Quarter Course Equivalency: BAF 205

BAFN 2210 - CONTEMPORARY BANK MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): BAFN 1100, BAFN 1110, BAFN 1115, BAFN 2215

Co-requisite(s): None

Emphasizes the relevance of banks and the economy, bank regulations and policy, bank organizational structure, bank management, the financial institutions environment, bank deregulation, and asset/liability management.

Quarter Course Equivalency: BAF 210

BAFN 2215 - INVESTMENTS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): BAFN 1115

Co-requisite(s): None

Introduces the student to the fundamentals concepts of personal investment planning, personal investments, the various financial investments available for use, and their relative applicability. Emphasis is placed on developing a full understanding of the types of investments available to individuals, how these investments can be used and how to evaluate their performance. Topics include: stocks, bonds, mutual funds, retirement planning, retirement plans and investment advisors.

Quarter Course Equivalency: BAF 215

BARB 1000 – INTRODUCTION TO BARBER/STYLING IMPLEMENTS

Credit Hours: 3

Weekly Contact Hours: Lecture -1 Lab –5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduction to Barber/Styling Implements is designed to give an overview of the barbering profession. Students are also taught the fundamentals of each barber/styling implement. Emphasis will be placed on the maintenance and care of each implement. Topics include: Barbering history, personality development, professional barbering ethics, and professional barbering image, safety, and reception and

telephone techniques, nomenclature, types and sizes, proper use and care, and maintenance.

BARB 1010 – SCIENCE: STERILIZATION, SANITATION, AND BACTERIOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture -2 Lab -3

Pre-requisite(s): BARB 1000

Co-requisite(s): BARB 1000, ENGL 1010

Introduces fundamental theories and practices of bacteriology, sterilization, sanitation, safety, and the welfare of the barber/stylist and patron. Topics include: sterilization, sanitation, safety, bacteriology, and Hazardous Duty Standards Act compliance.

BARB 1020 – INTRODUCTION TO HAIRCUTTING AND SHAMPOOING

Credit Hours: 5

Weekly Contact Hours: Lecture -3 Lab -6

Pre-requisite(s): BARB 1000, BARB 1010

Co-requisite(s): BARB 1000, BARB 1010, EMPL 1000

Introduces the theory and skills necessary to apply basic haircutting techniques. Safe use of haircutting implements will be stressed. Also introduces the fundamental theory and skills required to shampoo hair. Laboratory training includes shampooing a live model. Topics include: preparation of patron, haircutting terminology, safety and sanitation, implements, and basic haircutting techniques, shampoo chemistry, patron preparation, and shampoo procedures.

BARB 1030 – HAIRCUTTING/BASIC STYLING

Credit Hours: 3

Weekly Contact Hours: Lecture -1 Lab -6

Pre-requisite(s): BARB 1020

Co-requisite(s): BARB 1020

Continues the theory and application of haircutting techniques and introduces hairstyling. Topics include: introduction to styling, client consultation, head and hair analysis, style cutting techniques, and implements for style cutting and tapering techniques.

BARB 1040 – SHAVING

Credit Hours: 2

Weekly Contact Hours: Lecture -1 Lab -3

Pre-requisite(s): BARB 1020

Co-requisite(s): BARB 1020

Introduces the theory and skills necessary to prepare and shave a patron. Simulated shaving procedures will precede practice on live models. Topics include: patron preparation, beard preparation, shaving techniques, once-over shave techniques, and safety precautions.

BARB 1050 – SCIENCE: ANATOMY AND PHYSIOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab -0

Pre-requisite(s): None

Co-requisite(s): BARB 1010

Develops knowledge of the function and care of the scalp, skin, and hair. Emphasis is placed on the function, health, and growth of these areas. Topics include: cells, skeletal system, muscular system, nervous system, circulatory system, and related systems.

BARB 1060 – INTRODUCTION TO COLOR THEORY/ COLOR APPLICATION

Credit Hours: 3

Weekly Contact Hours: Lecture -1 Lab -5

Pre-requisite(s): Program Admission

Co-requisite(s): MATH 1012

Introduces the fundamental theory of color, predispositions tests, color selection, and color application. Presents the application of temporary, semi-permanent, and permanent hair coloring products. Topics include: basic color concepts, skin reactions, the color wheel, color selection and application, mustache and beards, coloring products, safety precautions and tests, mixing procedures, color selection and application.

BARB 1070 – CHEMICAL RESTRUCTURING OF HAIR

Credit Hours: 5

Weekly Contact Hours: Lecture -2 Lab -9

Pre-requisite(s): BARB 1050

Co-requisite(s): MATH 1012

Introduces the chemistry and chemical reactions of permanent wave solutions and relaxers. Provide instructions in the applications of permanent waves and hair relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Application of perms and relaxers on live models is included. Topics include: permanent wave techniques, safety procedures, chemical relaxer techniques, and permanent wave and chemical relaxer, application procedures on manikins, timed permanent wave, timed relaxer applications, safety precautions, and Hazardous Duty Standard Act.

BARB 1080 – ADVANCED HAIRCUTTING/STYLING

Credit Hours: 5

Weekly Contact Hours: Lecture -1 Lab -12

Pre-requisite(s): BARB 1030, BARB 1040

Co-requisite(s): MATH 1012

Continues the theory and application of haircutting and styling techniques. Topics include: elevation and design cutting, introduction to hairpieces, blow-dry styling, and

thermal waving and curling, advanced haircutting and styling; use of clippers, shears, and razor; hair chemical texturizing/styling; permanent waving/styling; shaving techniques; and beard trimming.

BARB 1090 – STRUCTURES OF SKIN, SCALP, HAIR AND FACIAL TREATMENTS

Credit Hours: 3

Weekly Contact Hours: Lecture -1 Lab –6

Pre-requisite(s): BARB 1050

Co-requisite(s): None

Introduces the theory, procedures, and products used in the care and treatment of the skin, scalp, and hair. Provides instruction on the theory and application of techniques in the treatment of the skin, scalp, and hair; and introduces the theory and skills required in massaging the face, preparing the patron for facial treatment, and giving facial treatments for various skin conditions. Benefits of facial treatments and massage will be emphasized. Emphasis will be placed on work with live models. Topics include: treatment theory, basic corrective hair and scalp treatments, plain facial, products and supplies, disease and disorders, implements, products and supplies, diseases and disorders, corrective hair and scalp treatments, facial procedures and manipulations, and safety precautions, theory of massage, preparation of patron for massage, massage procedures, facial treatment, types of facials, and facial treatment benefits.

BARB 1100 – BARBER/STYLING PRACTICUM AND INTERNSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture -0 Lab –9

Pre-requisite(s): BARB 1080

Co-requisite(s): BARB 1080

Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting or in a combination of a laboratory setting and an approved internship facility. Topics include: haircutting/styling, hairstyling texturizing, shaving, beard trimming, thermal waving, hairpiece fitting and styling, safety precautions, and licensure preparation.

BARB 1110 – SHOP MANAGEMENT/OWNERSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture -1 Lab –6

Pre-requisite(s): BARB 1080

Co-requisite(s): BARB 1080

Emphasizes the steps involved in opening and operating a privately owned cosmetology salon or barber/styling shop. Topics include: planning a salon/shop, business management, retailing, public relations, sales skills, client retention, and entrepreneurship.

BIOL 1111 - BIOLOGY I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): BIOL 1111L

Provides an introduction to basic biological concepts with a focus on living cells. Topics include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, and biotechnology.

Quarter Course Equivalency: BIO 1111 or BIO 191

BIOL 1111L - BIOLOGY LAB I

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): BIOL 1111

Selected laboratory exercises paralleling the topics in BIOL 1111. The laboratory exercises for this course include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, and biotechnology.

Quarter Course Equivalency: BIO 1111 or BIO 191

BIOL 1112 - BIOLOGY II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): BIOL 1111, BIOL 1111L w/ a “C” or better

Co-requisite(s): BIOL 1112L

Provides an introduction to basic evolutionary concepts. Also, the course emphasizes animal and plant diversity, structure and function including reproduction and development, and the dynamics of ecology as it pertains to populations, communities, ecosystems, and biosphere. Topics include principles of evolution, classification and characterizations of organisms, plant structure and function, animal structure and function, principles of ecology, and biosphere.

Quarter Course Equivalency: BIO 1112 or BIO 192

BIOL 1112L - BIOLOGY LAB II

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): BIOL 1111, BIOL 1111L w/ a “C” or better

Co-requisite(s): BIOL 1112

Selected laboratory exercises paralleling the topics in BIOL 1112. The laboratory exercises for this course include principles of evolution, classification and characterizations of organisms, plant structure and function, animal structure and function, principles of ecology, and biosphere.

Quarter Course Equivalency: BIO 1112 or BIO 192

BIOL 2113 - ANATOMY AND PHYSIOLOGY I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): BIOL 2113L, ENGL 1101

Introduces the anatomy and physiology of the human body. Emphasis is placed on the development of a systemic perspective of anatomical structures and physiological processes. Topics include body organization, cell structure and functions, tissue classifications, integumentary system, skeletal system, muscular system, and nervous and sensory systems.

Quarter Course Equivalency: BIO 2113 or BIO 193

BIOL 2113L - ANATOMY AND PHYSIOLOGY I LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): BIOL 2113, ENGL 1101

Selected laboratory exercises paralleling the topics in BIOL 2113. The laboratory exercises for this course include body organization, cell structure and functions, tissue classifications, integumentary system, skeletal system, muscular system, and nervous sensory systems.

Quarter Course Equivalency: BIO 2113 or BIO 193

BIOL 2114 - ANATOMY AND PHYSIOLOGY II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): BIOL 2113, BIOL 2113L w/ a "C" or better

Co-requisite(s): BIOL 2114L

Continues the study of the anatomy and physiology of the human body. Topics include the endocrine system, cardiovascular system, blood and lymphatic system, immune system, respiratory system, digestive system, urinary system, and reproductive system.

Quarter Course Equivalency: BIO 2114 or BIO 194

BIOL 2114L - ANATOMY AND PHYSIOLOGY II LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): BIOL 2113, BIOL 2113L w/ a "C" or better

Co-requisite(s): BIOL 2114

Selected laboratory exercises paralleling the topics in BIOL 2114. The laboratory exercises for this course include the endocrine system, cardiovascular system, blood and lymphatic system, immune system, respiratory system, digestive system, urinary system, and reproductive system.

Quarter Course Equivalency: BIO 2114 or BIO 194

BIOL 2117 - INTRODUCTORY MICROBIOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): (BIOL 2113 and BIOL 2113L) OR (BIOL 1111 and BIOL 1111L) w/ a "C" or better

Co-requisite(s): BIOL 2117L

Provides students with a foundation in basic microbiology with emphasis on infectious disease. Topics include microbial diversity, microbial cell biology, microbial genetics, interactions and impact of microorganisms and humans, microorganisms and human disease.

Quarter Course Equivalency: BIO 2117 or BIO 1117

BIOL 2117L - INTRODUCTORY MICROBIOLOGY LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): (BIOL 2113 and BIOL 2113L) OR (BIOL 1111 and BIOL 1111L) w/ a "C" or better

Co-requisite(s): BIOL 2117

Selected laboratory exercises paralleling the topics in BIOL 2117. The laboratory exercises for this course include microbial diversity, microbial cell biology, microbial genetics, interactions and impact of microorganisms and humans, and microorganisms and human disease.

Quarter Course Equivalency: BIO 2117 or BIO 1117

BUSN 1015 - INTRODUCTION TO MEDICAL INSURANCE

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): ALHS 1090

Co-requisite(s): ALHS 1011

This course is designed to increase efficiency and streamline administrative procedures for insurance coding and billing. Topics include documentation in the medical record, diagnostic code selections, types of insurance, Medicare compliance policies related to documentation and confidentiality, and HIPAA and other compliance regulations.

Quarter Course Equivalency: BUS 115

BUSN 1100 - INTRODUCTION TO KEYBOARDING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the touch system of keyboarding placing emphasis on correct techniques. Topics include: computer hardware, computer software, file management, learning the alphabetic keyboard, the numeric keyboard and keypad, building speed and accuracy, and proofreading. Students attain a minimum of 25 GWAM (gross words a minute) on 3-minute timings with no more than 3 errors.

Quarter Course Equivalency: BUS 1100 or BUS 100

BUSN 1190 - DIGITAL TECHNOLOGIES IN BUSINESS

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): COMP 1000

Co-requisite(s): None

Provides an overview of digital technology used for conducting business. Students will learn the application of business activities using various digital platforms.

Quarter Course Equivalency: BUS 1170

BUSN 1240 - OFFICE PROCEDURES

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): COMP 1000

Co-requisite(s): None

Emphasizes essential skills required for the business office. Topics include: office protocol, time management, telecommunications and telephone techniques, office equipment, workplace mail, records management, travel/meeting arrangements, electronic mail, and workplace documents.

Quarter Course Equivalency: BUS 1240 or BUS 106

BUSN 1300 - INTRODUCTION TO BUSINESS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces organization and management concepts of the business world and in the office environment. Topics include business in a global economy, starting and organizing a business, enterprise management, marketing strategies and financial management.

Quarter Course Equivalency: BUS 1300

BUSN 1340 - CUSTOMER SERVICE EFFECTIVENESS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course emphasizes the importance of customer service throughout all businesses. Topics include: customer service challenges and problem solving; strategies for successful customer service; effective communication and dealing with difficult customers; empowerment, motivation, and leadership; customer retention and satisfaction measurement; and excellence in customer service.

Quarter Course Equivalency: BUS 1340

BUSN 1400 - WORD PROCESSING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): COMP 1000

Co-requisite(s): None

This course covers the knowledge and skills required to use word processing software through course demonstrations, laboratory exercises and projects. Minimal document keying will be necessary as students will work with existing documents to learn the functions and features of the word processing application. Topics and assignments will include: word processing concepts, customizing documents, formatting content, working with visual content, organizing content, reviewing documents, sharing and securing content.

Quarter Course Equivalency: BUS 1140 and BUS 2110

BUSN 1410 - SPREADSHEET CONCEPTS AND APPLICATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): COMP 1000

Co-requisite(s): None

This course covers the knowledge and skills required to use spreadsheet software through course demonstrations, laboratory exercises and projects. Topics and assignments will include: spreadsheet concepts, creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually and, collaborating and securing data.

Quarter Course Equivalency: BUS 2120 and BUS 2130

BUSN 1420 - DATABASE APPLICATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): COMP 1000

Co-requisite(s): None

This course covers the knowledge and skills required to use database management software through course demonstrations, laboratory exercises and projects. Topics and assignments will include: database concepts, structuring databases, creating and formatting database elements, entering and modifying data, creating and modifying queries, presenting and sharing data and, managing and maintaining databases.

Quarter Course Equivalency: BUS 1150 and BUS 2140

BUSN 1430 - DESKTOP PUBLICATION AND PRESENTATION APPLICATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): COMP 1000

Co-requisite(s): None

This course covers the knowledge and skills required to use desktop publishing (DTP) software and presentation software to create business publications and presentations. Course work will include course demonstrations, laboratory exercises and projects. Topics include: desktop publishing

concepts, basic graphic design, publication layout, presentation design, and practical applications.
Quarter Course Equivalency: BUS 1160 and BUS 2150

BUSN 1440 - DOCUMENT PRODUCTION

Credit Hours: 4
Weekly Contact Hours: Lecture - 1 Lab - 6
Pre-requisite(s): BUSN 1100 or ability to key 25 gross words a minute on 3-minute timings with no more than 3 errors; COMP 1000
Co-requisite(s): NONE
Reinforces the touch system of keyboarding placing emphasis on correct techniques with adequate speed and accuracy and producing properly formatted business documents. Topics include: reinforcing correct keyboarding technique, building speed and accuracy, formatting business documents, language arts, proofreading, and work area management.

Quarter Course Equivalency: BUS 1130 or BUS 101

BUSN 2160 - ELECTRONIC MAIL APPLICATIONS

Credit Hours: 2
Weekly Contact Hours: Lecture - 1 Lab - 2
Pre-requisite(s): COMP 1000
Co-requisite(s): None
This course provides instruction in the fundamentals of communicating with others inside and outside the organization via a personal information management program. Emphasizes the concepts necessary for individuals and workgroups to organize, find, view, and share information via electronic communication channels. Topics include: Internal and External Communication, Message Management, Calendar Management, Navigation, Contact and Task Management, and Security and Privacy.

Quarter Course Equivalency: BUS 2160

BUSN 2190 - BUSINESS DOCUMENT PROOFREADING AND EDITING

Credit Hours: 3
Weekly Contact Hours: Lecture - 1 Lab - 4
Pre-requisite(s): ENGL 1010 or ENGL 1101
Co-requisite(s): BUSN 1440
Emphasizes proper proofreading and editing for business documents. Topics include: applying proofreading techniques and proofreaders marks with business documents; proper content, clarity, and conciseness in business documents; and business document formatting.

Quarter Course Equivalency: BUS 1120 or BUS 148

BUSN 2210 - APPLIED OFFICE PROCEDURES

Credit Hours: 3
Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): BUSN 1240, BUSN 1400, BUSN 1410, BUSN 1440

Co-requisite(s): (BUSN 2200 or ACCT 1100) and BUSN 2190

This course focuses on applying knowledge and skills learned in prior courses taken in the program. Topics include: communications skills, telecommunications skills, records management skills, office equipment/supplies, and integrated programs/applications. Serves as a capstone course.

Quarter Course Equivalency: BUS 2210 or BUS 109

BUSN 2240 - BUSINESS ADMINISTRATION ASSISTANT INTERNSHIP I

Credit Hours: 4
Weekly Contact Hours: Lecture - 0 Lab - 12
Pre-requisite(s): Must be in last semester of program. With advisor approval, may take concurrently with last semester courses

Co-requisite(s): None
Provides student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

Quarter Course Equivalency: BUS 2240

BUSN 2250 - BUSINESS ADMINISTRATION ASSISTANT INTERNSHIP II

Credit Hours: 6
Weekly Contact Hours: Lecture - 0 Lab - 18
Pre-requisite(s): Must be in last semester of program. With advisor approval, may take concurrently with last semester courses

Co-requisite(s): None
Provides student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

Quarter Course Equivalency: BUS 2250

BUSN 2320 - MEDICAL DOCUMENT PROCESSING AND TRANSCRIPTION

Credit Hours: 4
Weekly Contact Hours: Lecture - 2 Lab - 4
Pre-requisite(s): BUSN 1440, ENGL 1010, (BUSN 2300 or ALHS 1090), and (ALHS 1010 or ALHS 1011 or BUSN 2310)

Co-requisite(s): None

Provides experience in medical machine transcription working with the most frequently used medical reports. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, and pronunciation.

Quarter Course Equivalency: BUS 2320 or BUS 213

BUSN 2330 - ADVANCED MEDICAL DOCUMENT PROCESSING AND TRANSCRIPTION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): BUSN 2320

Co-requisite(s): None

Continues the development of speed and accuracy in the transcription of medical reports with emphasis on a variety of medical specialization. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, pronunciation, and medical transcription work ethics.

Quarter Course Equivalency: BUS 2330 or BUS 214

BUSN 2340 - MEDICAL ADMINISTRATIVE PROCEDURES

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): BUSN 1440, COMP 1000, (BUSN 2300 or ALHS 1090), and (ALHS 1010 or ALHS 1011 or BUSN 2310)

Co-requisite(s): None

Emphasizes essential skills required for the medical office. Introduces the knowledge and skills of procedures for billing purposes. Introduces the basic concept of medical administrative assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical administrative assistant's role as an agent of the physician. Provides the student with knowledge and the essentials of professional behavior. Topics include: introduction to medical administrative assisting, medical law, ethics, patient relations/human relations, physician-patient-assistant relationship, medical office in litigation, medical records management, scheduling appointments, pegboard or computerized accounting, health insurance, transcription of medical documents, and billing/collection.

Quarter Course Equivalency: BUS 2340 or BUS 216

BUSN 2370 - MEDICAL OFFICE BILLING, CODING, AND INSURANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): (BUSN 2300 or ALHS 1090), and (ALHS 1010 or ALHS 1011 or BUSN 2310)

Co-requisite(s): None

Provides an introduction to medical coding skills and applications of international coding standards for billing of health care services. Provides the knowledge and skills to apply coding of diagnostic statements and procedures for billing purposes. Provides an introduction to medical coding as it relates to health insurance. Topics include: International classification of diseases, code book formats; coding techniques; formats of the ICD and CPT manuals; health insurance; billing, reimbursement, and collections; and managed care.

Quarter Course Equivalency: BUS 2370 or BUS 226

BUSN 2380 – MEDICAL ADMINISTRATIVE ASSISTANT INTERNSHIP I

Credit Hours: 4

Weekly Contact Hours: Lecture – 0 Lab – 12

Pre-requisite(s): Must be in last semester of program. With advisor approval, may take concurrently with last semester courses.

Co-requisite(s): None

Provides student work experience in a medical office environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

Quarter Course Equivalency: New

CCMN 1000: INTRODUCTION TO CONSTRUCTION AND DEVELOPMENT

Credit Hours: 2

Weekly Contact Hours: Lecture -1 Lab –2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course is a study of the commercial construction process, terminology, participant roles, and phases. Topics include: project types, project stages, construction documents, marketing, contract procurement, estimating, bonding, scheduling, mobilization, materials, methods, change orders, claims, safety, organizational management, computers in construction, communication, high rise construction, contract types, liability and loss control.

CCMN 1020: BUILDING TECHNOLOGIES AND METHODS

Credit Hours: 4

Weekly Contact Hours: Lecture -3 Lab –2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course is a study of the materials and technologies utilized in commercial construction. Topics include: site-work, foundations, building structure, interior and exterior

finishes, and roofing. A brief overview of mechanical, electrical, plumbing and conveying systems is included. An overview of materials testing is also presented.

CCMN 1030: CONSTRUCTION GRAPHICS

Credit Hours: 3

Weekly Contact Hours: Lecture -2 Lab -2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course provides the skills to read and interpret commercial construction graphical documents. Topics include: dimensioning practices, layout, abbreviations, symbol usage, line types, computer aided design, and principles of drawing.

CCMN 1040: CONSTRUCTION SAFETY

Credit Hours: 4

Weekly Contact Hours: Lecture -4 Lab -0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course covers commercial construction safety and loss prevention. Topics include: safety plan management, emergency planning, project security, sources of safety information and supplies, personal protective equipment (PPE), fire prevention, hazardous communications, material safety data sheets (MSDS), fall protection, electrical hazards, ladders, scaffolds, stairways, confined spaces, excavations, training techniques, accident reporting, materials handling and storage, cranes, mechanized equipment, steel erection, and concrete construction.

CCMN 1060: CONSTRUCTION ESTIMATING I

Credit Hours: 4

Weekly Contact Hours: Lecture -3 Lab -2

Pre-requisite(s): CCMN 1030

Co-requisite(s): None

This course provides the skills required to develop a material quantity estimate from commercial construction drawings and specifications. Completion of a quantity survey project is required.

CCMN 1070: CONSTRUCTION ESTIMATING II

Credit Hours: 4

Weekly Contact Hours: Lecture -3 Lab -2

Pre-requisite(s): CCMN 1060

Co-requisite(s): None

This course continues the study of the estimating process emphasizing pricing the general contractor's work including: estimating procedures, development of direct and indirect unit costs, evaluation of subcontractor's bids, bidding strategy, and bid opening. The completion of an estimate, bid submission, and development of a schedule of values

are required. Also included is an introduction to conceptual estimating.

CCMN 2010: CONSTRUCTION LAW

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab -0

Pre-requisite(s): None

Co-requisite(s): None

This course is a study of the legal aspects of commercial construction contracting. Topics include: contracts, drug testing, sexual harassment, labor management relations, discrimination, worker compensation, bonding, claims, arbitration, mediation, business types, minority business enterprises, hiring and firing practices.

CCMN 2020: CONSTRUCTION SCHEDULING

Credit Hours: 4

Weekly Contact Hours: Lecture -4 Lab -0

Pre-requisite(s): None

Co-requisite(s): None

This course is a study of commercial construction scheduling and cost controls. Topics include network diagrams, time-scaled design, Gantt charts and computerized scheduling. Students will complete projects utilizing the critical path method in both manual and computerized formats.

CCMN 2030: CONSTRUCTION ACCOUNTING AND FINANCIAL MANAGEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture -4 Lab -0

Pre-requisite(s): None

Co-requisite(s): None

This course provides a study of financial management and accounting theory with specific application to the commercial construction industry. Topics include accounting data, financial statements, cost control, taxation, ratio analysis, the time value of money, budgeting, cash flow, financing, and receivables.

CCMN 2040: CONSTRUCTION PROJECT MANAGEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture -4 Lab -0

Pre-requisite(s): None

Co-requisite(s): None

This course is a study of delivery methods, contract documents, supervision, working with owners and design professionals, control of cash flow, procurement, management of subcontractors, job records, contract changes, and payment procedures.

CHEM 1151 - SURVEY OF INORGANIC CHEMISTRY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MATH 1101 or MATH 1111 w/ a "C" or better

Co-requisite(s): CHEM 1151L

Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include measurements and units, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.

Quarter Course Equivalency: CHM 1213 or CHM 193

CHEM 1151L - SURVEY OF INORGANIC CHEMISTRY LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): MATH 1101 or MATH 1111 w/ a "C" or better

Co-requisite(s): CHEM 1151

Selected laboratory experiments paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurements, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.

Quarter Course Equivalency: CHM 1213 or CHM 193

CHEM 1152 - SURVEY OF ORGANIC CHEMISTRY/ BIOCHEMISTRY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): CHEM 1151 and CHEM 1151L w/ a "C" or better

Co-requisite(s): CHEM 1152L

Provides an introduction to organic chemistry and biochemistry. This survey will include an overview of the properties, structure, nomenclature, reactions of hydrocarbons, alcohols, phenols, ethers, halides, aldehydes, ketones, carboxylic acids, esters, amines, amides; the properties, structure, and function of carbohydrates, lipids, proteins, and enzymes, as well as, intermediary metabolism. Topics include basic principles, hydrocarbons, hydrocarbon derivatives, heterocyclic rings and alkaloids, carbohydrates, lipids and fats, proteins, nucleic acids, and intermediary metabolism.

Quarter Course Equivalency: CHM 1214

CHEM 1152L - SURVEY OF ORGANIC CHEMISTRY/ BIOCHEMISTRY LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): CHEM 1151 and CHEM 1151L w/ a "C" or better

Co-requisite(s): CHEM 1152

Selected laboratory exercises paralleling the topics in CHEM 1152. The laboratory exercises for this course include basic principles of organic chemistry, hydrocarbons, hydrocarbon derivatives, heterocyclic rings and alkaloids, carbohydrates, lipids and fats, proteins, nucleic acids, and intermediary metabolism.

Quarter Course Equivalency: CHM 1214

CHEM 1211 - CHEMISTRY I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MATH 1101 or MATH 1111 w/ a "C" or better

Co-requisite(s): CHEM 1211L

Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, and stoichiometry and gas laws.

Quarter Course Equivalency: CHM 1111 or CHM 191

CHEM 1211L - CHEMISTRY I LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): MATH 1101 or MATH 1111 w/ a "C" or better

Co-requisite(s): CHEM 1211

Selected laboratory exercises paralleling the topics in CHEM 1211. The laboratory exercises for this course include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, stoichiometry and gas laws.

Quarter Course Equivalency: CHM 1111 or CHM 191

CHEM 1212 - CHEMISTRY II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): CHEM 1211 and CHEM 1211L w/ a "C" or better

Co-requisite(s): CHEM 1212L

Continues the exploration of basic chemical principles and concepts. Topics include equilibrium theory, kinetics, thermodynamics, solution chemistry, acid-base theory, and nuclear chemistry.

Quarter Course Equivalency: CHM 1112 or CHM 192

CHEM 1212L - CHEMISTRY II LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): CHEM 1211 and CHEM 1211L w/ a “C” or better

Co-requisite(s): CHEM 1212

Selected laboratory exercises paralleling the topics in CHEM 1212. The laboratory exercises for this course include equilibrium theory, kinetics, thermodynamics, solution chemistry, acid-base theory, and nuclear chemistry.

Quarter Course Equivalency: CHM 1112 or CHM 192

CIST 1001 - COMPUTER CONCEPTS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

Provides an overview of information systems, computers and technology. Topics include: Information Systems and Technology Terminology, Computer History, Data Representation, Data Storage Concepts, Fundamentals of Information Processing, Fundamentals of Information Security, Information Technology Ethics, Fundamentals of Hardware Operation, Fundamentals of Networking, Fundamentals of the Internet, Fundamentals of Software Design Concepts, Fundamentals of Software, (System and Application), System Development Methodology, Computer Number Systems conversion (Binary and Hexadecimal), Mobile computing.

Quarter Course Equivalency: CIS 106

CIST 1122 - HARDWARE INSTALLATION & MAINTENANCE

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course serves to provide students with the knowledge of the fundamentals of computer technology, networking, and security along with the skills required to identify hardware, peripheral, networking, and security components with an introduction to the fundamentals of installing and maintaining computers. Students will develop the skills to identify the basic functionality of the operating system, perform basic troubleshooting techniques, utilize proper safety procedures, and effectively interact with customers and peers. This course is designed to help prepare students for the CompTIA A+ certification examination.

Quarter Course Equivalency: CIS 122

CIST 1130 - OPERATING SYSTEMS CONCEPTS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

Provides an overview of modern operating systems and their use in home and small business environments. Activities

will utilize the graphical user interface (GUI) and command line environment (CLI). This will include operating system fundamentals; installing, configuring, and upgrading operating systems; managing storage, file systems, hardware and system resources; troubleshooting, diagnostics, and maintenance of operating systems; and networking.

Quarter Course Equivalency: CIS 103 or CIS 173

CIST 1200 - DATABASE MANAGEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

Provides an overview of the skills and knowledge of database application systems which are used in business government and industry. Topics include: history, database terminology and concepts, database system logical organization, data manipulation, database design concepts, models, normalization, Entity Relationship diagramming, physical database, networking and databases, and database security.

Quarter Course Equivalencies: CIS 214, CIS 2229

CIST 1220 - STRUCTURED QUERY LANGUAGE (SQL)

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1001

Co-requisite(s): None

Includes basic database design concepts and solving database retrieval and modification problems using the SQL language. Topics include: database Vocabulary, Relational Database Design, Data retrieval using SQL, Data Modification using SQL, Developing and Using SQL Procedures.

Quarter Course Equivalency: CIS 2161

CIST 1305 - PROGRAM DESIGN AND DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

An introductory course that provides problem solving and programming concepts for those that develop user applications. An emphasis is placed on developing logic, troubleshooting, and using tools to develop solutions. Topics include: problem solving and programming concepts, structured programming, the four logic structures, file processing concepts, and arrays.

Quarter Course Equivalency: CIS 105

CIST 1401 - COMPUTER NETWORKING FUNDAMENTALS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces networking technologies and prepares students to take the CompTIA*s broad-based, vendor independent networking certification exam, Network +. This course covers a wide range of material about networking, including local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. Topics include: basic knowledge of networking technology, network media and topologies, network devices, network management, network tools and network security.

Quarter Course Equivalency: CIS 1140

CIST 1510 - WEB DEVELOPMENT I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Explores the concepts of Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), XML, and HTML following the current standards set by the World Wide Web Consortium (W3C) for developing inter-linking web pages that include graphical elements, hyperlinks, tables, forms, and image maps.

Quarter Course Equivalency: CIS 2201 or CIS 2202

CIST 1520 - SCRIPTING TECHNOLOGIES

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): CIST 1510

Co-requisite(s): None

In CIST 1520 Scripting Technologies students learn how to use the features and structure of a client side scripting language. Students will also explore the features on server side scripting. Students will develop professional web applications that include special effects, interactive, dynamic, validated, and secure forms.

Quarter Course Equivalency: CIS 2261

CIST 1530 - WEB GRAPHICS I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Students will explore how to use industry standard or open source graphics software programs to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays. The course includes a final project that allows students to develop a Web page/site using the chosen software.

Quarter Course Equivalency: CIS 1104

CIST 1540 - WEB ANIMATION I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

In this course, students will use scripting and the latest in industry standard or open source software to cover the creation and manipulation of images and animations. Topics include graphic types, organizational methods, drawing tools, beginning to complex object modeling and an introduction to scripting.

Quarter Course Equivalency: CIS 1123

CIST 1601 - INFORMATION SECURITY FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course provides a broad overview of information security. It covers terminology, history, security systems development and implementation. Student will also cover the legal, ethical, and professional issues in information security.

Quarter Course Equivalency: CIS 1115

CIST 1602 - SECURITY POLICIES AND PROCEDURES

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course provides knowledge and experience to develop and maintain security policies and procedures. Students will explore the legal and ethical issues in information security and the various security layers: physical security, personnel security, operating systems, network, software, communication and database security. Students will develop an Information Security Policy and an Acceptable Use Policy.

Quarter Course Equivalency: CIS 1116

CIST 2120 - USING APPLICATION SOFTWARE

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): COMP 1000

Co-requisite(s): None

This course provides students with knowledge in the following areas: word processing, spreadsheets and presentation software. Word processing topics include creating, customizing, and organizing documents by using formatting and visual content that is appropriate for the information presented. Spreadsheet topics include creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually, and collaborating on and securing data. Presentation topics include creating and formatting presentation masters and templates, creating and formatting slide content, working with dynamic visual content, and collaborating on and delivering presentations. This course is designed to help prepare students for the Microsoft Certification tests in Word, Excel and PowerPoint.

Quarter Course Equivalency: CIS 127 and CIS 2228

CIST 2122 - A+ PREPARATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): CIST 1122

Co-requisite(s): None

This course serves to prepare students to complete the CompTIA A+ certification examination. It will provide students with advanced knowledge of computer technology, networking, and security fundamentals. Students will possess the skills required to identify hardware, peripherals, networking components, and security components. Students will understand basic operating system functionality and troubleshooting methodology while practicing proper safety procedures and effective interaction skills with customers and peers.

Quarter Course Equivalency: CIS 286

CIST 2129 – COMPREHENSIVE DATABASE TECHNIQUES

Credit Hours: 4

Weekly Contact Hours: Lecture – 1 Lab – 6

Pre-requisite(s): None

Co-requisite(s): None

This course provides a study of databases beginning with introductory topics and progressing through advanced development techniques. Topics include: advanced database concepts, advanced development techniques, data integration concepts, and troubleshooting and supporting databases.

Quarter Course Equivalency: CIS 2229

CIST 2222 - ADMINISTERING MICROSOFT SQL SERVER

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): (CIST 1220 or CIST 1210) and CIST 2414

Co-requisite(s): None

Provides instruction on how to administer a Microsoft SQL server. Topics include: planning, installation and configuration, configuring and managing security, managing and maintaining data, monitoring and optimization, and troubleshooting.

Quarter Course Equivalency: CIS 2162

CIST 2224 - DESIGNING AND IMPLEMENTING DATABASES W/ MICROSOFT SQL SERVER

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1220

Co-requisite(s): None

Shows how to design and implement a database solution using Microsoft SQL Server. Topics include: developing logical data model and physical design, creating data services, creating physical database, and maintaining a database.

Quarter Course Equivalency: CIS 2163

CIST 2311 - VISUAL BASIC I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305

Co-requisite(s): None

Visual Basic I introduces event-driven programming. Common elements of Windows applications will be discussed created and manipulated using Microsofts Visual Studio development environment. Topics include numeric data types and variables, decision making structures, arrays, validating input with strings and functions, repetition and multiple forms, test files, lists and common dialog controls.

Quarter Course Equivalency: CIS 1121 or CIS 157

CIST 2312 - VISUAL BASIC II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305, CIST 2311

Co-requisite(s): None

Visual Basic II teaches client-server systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update relational and XML databases. Advanced features of Visual Basic are explored.

Quarter Course Equivalency: CIS 1122 or CIS 2570

CIST 2313 – VISUAL BASIC III

Credit Hours: 4

Weekly Contact Hours: Lecture – 2 Lab – 5

Pre-requisite(s): CIST 2311, CIST 2312

Co-requisite(s): None

This course provides a look at advanced Web Programming techniques using Microsoft Visual Basic. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

Quarter Course Equivalency: CIS 2570

CIST 2341 - C# PROGRAMMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305

Co-requisite(s): None

This course is designed to teach the basic concepts and methods of object-oriented design and C#.Net programming. Use practical problems to illustrate C#.Net application building techniques and concepts. Develop an understanding of C#.Net vocabulary. Create an understanding of where C#.Net fits in the application development landscape. Create an understanding of the C#.Net Development Environment, Visual Studio and how to develop, debug, and run C#.Net applications using the Visual Studio. Continue to develop student's programming logic skills. Topics include: C#.NET Language History, C#.NET Variable Definitions, C#.NET Control Structures, C#.NET Functions, C#.NET Classes, C#.NET Objects, and C#.NET Graphics.

Quarter Course Equivalency: CIS 1491

CIST 2342 – C# PROGRAMMING II

Credit Hours: 4

Weekly Contact Hours: Lecture – 2 Lab – 5

Pre-requisite(s): CIST 2341

Co-requisite(s): None

This course is an intermediate course in C#.NET Programming. It is assumed that the student knows the C#.NET syntax as well as basic object oriented concepts. Intermediate C#.NET teaches client-server systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update relational databases. Advanced features of C# windows programming are explored.

Quarter Course Equivalency: CIS 1492

CIST 2343 - C# PROGRAMMING III

Credit Hours: 4

Weekly Contact Hours: Lecture – 2 Lab – 5

Pre-requisite(s): CIST 2342

Co-requisite(s): None

This course is an advanced course in C#.NET programming. It is assumed that the student is fairly familiar with the C#.NET programming language. The goal of this course is to help students understand how to use C# to build industry level dynamic Web-based applications. The course covers in detail how to use C# to develop an Enterprise level Web Application. The students will learn how to use HTML to build the Client-Side, and how to use C# for the Server side processing of data and talking to databases.

Quarter Course Equivalency: New

CIST 2351 - PHP PROGRAMMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305, CIST 1510

Co-requisite(s): None

An introductory PHP programming course that teaches students how to create dynamic websites. Topics include: PHP and basic web programming concepts, installing PHP, embedding PHP in HTML, variables and constants, operators, forms, conditional statements, looping, arrays, and text files.

Quarter Course Equivalency: CIS 2451

CIST 2352 - PHP PROGRAMMING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 2351

Co-requisite(s): None

Reinforces and extends the concepts learned in PHP Programming I. Topics include: Database retrieval and updating, multiple form handling, regular expressions, and advanced array processing.

Quarter Course Equivalency: CIS 2452

CIST 2361 - C++ PROGRAMMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305

Co-requisite(s): None

Provides opportunity to gain a working knowledge of C++ programming. Includes creating, editing, executing, and debugging C++ programs of moderate difficulty. Topics include: basic C++ concepts, simple I/O and expressions, I/O and control statements, arrays, pointers, structures, managing data and developing programs.

Quarter Course Equivalency: CIS 282

CIST 2362 - C++ PROGRAMMING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 2361

Co-requisite(s): None

Develops skills for the programmer to write programs using the language of C++. Emphasis is placed on utilizing the added features of C++, which will be added to the skills mastered in Introduction to C++ Programming.

Topics include: objects, classes, inheritance, overloading, polymorphism, streams, containers, and exceptions.

Quarter Course Equivalency: CIS 149

CIST 2371 - JAVA PROGRAMMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305

Co-requisite(s): None

This course is designed to teach the basic concepts and methods of object-oriented design and Java programming. Use practical problems to illustrate Java application building techniques and concepts. Develop an understanding of Java vocabulary. Create an understanding of where Java fits in the application development landscape. Create an understanding of the Java Development Kit and how to develop, debug, and run Java applications using the JDK. Continue to develop student's programming logic skills. Topics include: JAVA Language History, JAVA Variable Definitions, JAVA Control Structures, JAVA Methods, JAVA Classes, JAVA Objects, and JAVA Graphics.

Quarter Course Equivalency: CIS 252

CIST 2372 - JAVA PROGRAMMING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 2371

Co-requisite(s): None

This course is an intermediate course in Java Programming. It is assumed that the student knows the Java syntax as well as basic object oriented concepts. The student will use classes and objects provided by the core Java API. They will use these classes to accomplish tasks such as Database access, File access, exception handling, running threads, using sockets to talk across a network, and remotely calling methods using RMI techniques.

Quarter Course Equivalency: CIS 2421

CIST 2373 - JAVA PROGRAMMING III

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 2372

Co-requisite(s): None

This course is a course in building Web Applications using Java Enterprise Edition (JEE). It is assumed that the student knows Java Standard Edition as the concepts and techniques build on that foundation. The student will install Web, Application and Database servers. The student will learn

to build Web Applications using JEE technologies, such as Servlets, Java Server Pages and Enterprise JavaBeans.

Quarter Course Equivalency: CIS 2431

CIST 2381 - MOBILE APPLICATION DEVELOPMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1305

Co-requisite(s): None

This course explores mobile guidelines, standards, and techniques. This course includes design and development techniques for multiple mobile devices, platforms, and operating systems. Students will develop mobile applications using state of practice development tools, languages and devices.

Quarter Course Equivalency: New

CIST 2411 - MICROSOFT CLIENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1401, CIST 2441, CIST 2451, CIS 1140, CIST 2321

Co-requisite(s): None

Provides the ability to implement, administrator, and troubleshoot Windows Professional Client as a desktop operating system in any network environment.

Quarter Course Equivalency: CIS 2149

CIST 2412 - MICROSOFT SERVER DIRECTORY SERVICES

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1401, CIST 2441, CIST 2451, CIS 1140, CIST 2321

Co-requisite(s): None

Provides students with knowledge and skills necessary to install, configure, manage, support and administer Microsoft Directory Services.

Quarter Course Equivalency: CIS 2154

CIST 2413 - MICROSOFT SERVER INFRASTRUCTURE

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1401, CIST 2441, CIST 2451, CIS 1140, CIST 2321

Co-requisite(s): None

Provides students with knowledge and skills necessary to install, configure, manage, support and administer a Microsoft network infrastructure.

Quarter Course Equivalency: CIS 2153

CIST 2414 - MICROSOFT SERVER ADMINISTRATOR

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1401, CIST 2441, CIST 2451, CIS 1140, CIST 2321

Co-requisite(s): None

Provides students with knowledge and skills necessary to install, configure, manage, support and administer Windows Server. Topics include server deployment, server management, monitor and maintain servers, application and data provisioning, and business continuity and high availability.

Quarter Course Equivalency: CIS 2150

CIST 2431 – UNIX/LINUX INTRODUCTION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course introduces the UNIX/Linux operating system skills necessary to perform entry-level user functions. Topics include: history of UNIX/Linux, login and logout, the user environment, user password change, the file system, hierarchy tree, editors, file system commands as they relate to navigating the file system tree, UNIX/Linux manual help pages, using the UNIX/Linux graphical desktop, and command options. In addition, the student must be able to perform directory and file displaying, creation, deletion, redirection, copying, moving, linking files, wildcards, determining present working directory and changing directory locations.

Quarter Course Equivalency: CIS 2554

CIST 2432 - UNIX/LINUX SERVER

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course covers UNIX/Linux operating system administration skills necessary to perform administrative functions. Topics include: installing UNIX/Linux, configuring and building a custom kernel, adding and removing software packages, managing run levels, managing users and groups, implementing security permissions, introduction to shell programming, managing and fixing the file system, managing memory and swap space, managing and scheduling jobs, managing system logs, understanding the boot process, system configuration files, file backup and restore, file compression, fault tolerance, and printing.

Quarter Course Equivalency: CIS 2555

CIST 2433 - UNIX/LINUX ADVANCED SERVER

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2432

Co-requisite(s): None

This course covers UNIX/Linux operating system advanced administration skills necessary to perform advanced administrative functions. Topics include: understanding UNIX/Linux networking, managing network printing, configuring and troubleshooting TCP/IP on UNIX/Linux, configuring DHCP, DNS, a Web server, an FTP server, an E-mail server, and understanding NIS (yp) and NFS. Also, includes the following: understanding advanced security issues such as firewalls and NAT, using network commands, use of graphical system such as X Windows, sharing files and printers, and advanced shell programming.

Quarter Course Equivalency: CIS 2556

CIST 2441 - NETWORK HOME AND SMALL BUSINESS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course teaches students the skills needed to obtain entry-level home network installer jobs. It also helps students develop some of the skills needed to become network technicians, computer technicians, cable installers, and help desk technicians. It provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in home and small business environments. Instructors are encouraged to facilitate field trips and outside-the-classroom learning experiences. Labs include PC installation, Internet connectivity, wireless connectivity, and file and print sharing.

Quarter Course Equivalency: CIS 2321

CIST 2442 - CISCO WORKING AT A SMALL-TO-MEDIUM BUSINESS OR ISP

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2441

Co-requisite(s): None

This course prepares students for jobs as network technicians and helps them develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It also familiarizes students with servers that provide email services, web space, and authenticated access. Students learn about the soft skills required for help desk and customer service positions, and the final chapter helps them prepare for the CCENT certification exam. Network

monitoring and basic troubleshooting skills are taught in context.

Quarter Course Equivalency: CIS 2322

CIST 2443 - CISCO ROUTING AND SWITCHING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2441

Co-requisite(s): None

The students will be familiarized with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol.

Quarter Course Equivalency: CIS 276

CIST 2444 - CISCO DESIGNING AND SUPPORTING COMPUTER NETWORKS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2442, CIST 2443

Co-requisite(s): None

This course introduces students to network design processes using two examples; a large stadium enterprise network and a medium-sized film company network. Students follow a standard design process to expand and upgrade each network, which includes requirements gathering, proof-of-concept, and project management. Lifecycle services, including upgrades, competitive analyses, and system integration, are presented in the context of pre-sale support. In addition to the Packet Tracer and lab exercises found in the previous courses, there are many pen-and-paper and role playing exercises that students complete while developing their network upgrade proposals.

Quarter Course Equivalency: CIS 277

CIST 2451 - CISCO NETWORK FUNDAMENTALS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides students with classroom and laboratory experience in current and emerging network technology. Topics include basics of communication, converged networks, OSI and TCP/IP network models, Application layer protocols, services, and applications, Transport layer protocols and services, Network layer addressing and routing concepts, IPv4 and IPv6, calculating IPv4 subnets, Data Link layer and the encapsulation process, Physical layer components and data encoding, Ethernet and network protocol analysis, network cabling, and basic

network configuration.

Quarter Course Equivalency: CIS 2321

CIST 2452 - CISCO ROUTING PROTOCOLS AND CONCEPTS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2451

Co-requisite(s): None

The goal is to develop an understanding of how a router learns about remote networks and determines the best path to those networks. Topics include basics of routing, static routing, dynamic routing, distance vector routing, distance vector routing protocols, VLSM and CIDR, routing table in-depth, link state routing, and link state routing protocols.

Quarter Course Equivalency: CIS 2322

CIST 2453 - CISCO LAN SWITCHING AND WIRELESS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2451

Co-requisite(s): None

The goal is to develop an understanding of how switches are interconnected and configured to provide network access to LAN users. This course also teaches how to integrate wireless devices into a LAN. Topics include LAN design, basic switch concepts and configuration, VLAN concepts and configuration, VTP concepts and configuration, STP concepts and configuration, Inter-VLAN routing, and basic wireless concepts and configuration.

Quarter Course Equivalency: CIS 276

CIST 2454 - CISCO ACCESSING THE WAN

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2452, CIST 2453

Co-requisite(s): None

Provides students with classroom and laboratory experience in current and emerging network technology. Topics include: introduction to WANs, WAN protocols, basic network security and ACLs, remote access, IP addressing services, and network troubleshooting.

Quarter Course Equivalency: CIS 277

CIST 2510 - WEB TECHNOLOGIES

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

In Web Technologies, students will investigate one or more software packages that help automate Web content creation. Students will explore and utilize various features of software

packages such as CSS, multimedia incorporation, scripting technologies, form creation, search functionality, advanced image techniques and database connectivity.

Quarter Course Equivalency: CIS 2211

CIST 2531 - WEB GRAPHICS II

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): CIST 1530

Co-requisite(s): None

Students will further explore how to use an industry standard or open source graphics software program to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays.

Quarter Course Equivalency: CIS 2005

CIST 2541 - WEB ANIMATION II

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): CIST 1540

Co-requisite(s): None

In this continuation of Web Animation I, students build on their basic scripting knowledge to incorporate advanced scripting techniques in an animated project. They will also explore how to create realistic graphics using inverse kinematics, how to create and edit advanced tweens and how to incorporate various media types into a Web based animation or movie. The course concludes with the completion of a Web animation project.

Quarter Course Equivalency: CIS 2105

CIST 2550 - WEB DEVELOPMENT II

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): CIST 1220, CIST 1510, CIST 1520

Co-requisite(s): None

Web Development II teaches students how to manipulate data in a database using the Open Database Connectivity (ODBC) model. Students will learn to retrieve, update, and display database information with a web application. Database access may be accomplished using a web programming language (such as PHP, Microsoft VB, Microsoft C#, or Sun Java). Topics include manipulating data in a database, working with a relational database via Open Database Connectivity (ODBC), working with different database systems, developing forms and applications to interact with a database server(s), modifying data in a database, and controls and validation.

Quarter Course Equivalency: CIS 2281

CIST 2560 - WEB APPLICATION PROGRAMMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1305

Co-requisite(s): None

CIST 2560 explores W3C and Microsoft .NET programming standards in order to practice various web programming techniques for creating web forms, providing web navigation, and accessing data that produce dynamic interactive web applications. Students may use Microsoft Visual Basic .NET, Microsoft C# .NET, or another .NET language.

Quarter Course Equivalency: CIS 1106 or CIS 1109

CIST 2570 - OPEN SOURCE WEB APPLICATION PROGRAMMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1305

Co-requisite(s): None

CIST 2570 explores open source W3C programming standards in order to practice various web programming techniques for creating web forms, providing web navigation, and accessing data that produce dynamic interactive web applications. Students may use Java, Perl, PHP, Python, or other open source web programming languages.

Quarter Course Equivalency: CIS 1107 or CIS 1110 or CIS 1111

CIST 2571 - OPEN SOURCE WEB APPLICATION PROGRAMMING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2570

Co-requisite(s): None

This course is a continuation of CIST 2570 Open Source Web Application Programming I. The student will explore advanced web programming concepts and technologies which include data binding, program security, program user validation, caching, widgets, AJAX, and social engineering. The student will follow W3C programming standards to produce dynamic interactive secure web applications. Students may use PERL, PHP, Java, Python, or another open source language.

Quarter Course Equivalency: CIS 2107 or CIS 2110 or CIS 2111

CIST 2580 - INTERACTIVE AND SOCIAL APPLICATIONS INTEGRATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): CIST 1305

Co-requisite(s): None

This course explores social and interactive web application technology and its effect on the business model. Topics include interactive and social web business model, interactive and social business web requirements and successful interactive and social integration.

Quarter Course Equivalency: New

CIST 2601 - IMPLEMENTING OPERATION SYSTEMS SECURITY

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1601 and (CIST 1401 or CIST 2451 or CIST 2441)

Co-requisite(s): None

This course will provide knowledge and the practical experience necessary to configure the most common server platforms. Lab exercises will provide students with experience of establishing operating systems security for the network environment.

Quarter Course Equivalency: CIS 1117

CIST 2602 - NETWORK SECURITY

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1601 and (CIST 1401 or CIST 2451 or CIST 2441)

Co-requisite(s): None

This course provides knowledge and the practical experience necessary to evaluate, implement and manage secure information transferred over computer networks. Topics include network security, intrusion detection, types of attacks, methods of attacks, security devices, basics of cryptography and organizational security elements.

Quarter Course Equivalency: CIS 1118

CIST 2611 - IMPLEMENTING INTERNET/INTRANET FIREWALLS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1601 and (CIST 1401 or CIST 2451 or CIST 2441)

Co-requisite(s): None

Students will learn how to plan, design, install and configure firewalls that will allow key services while maintaining security. This will include protecting the Internal IP services, configuring a firewall for remote access and managing a firewall.

Quarter Course Equivalency: CIS 1119

CIST 2612 - COMPUTER FORENSICS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 1122, CIST 1601

Co-requisite(s): None

This course examines the use of computers in the commission of crimes, collection, analysis and production of digital evidence. Students will use computer resources to explore basic computer forensic investigation techniques.

Quarter Course Equivalency: CIS 1120

CIST 2710 - 2D COMPUTER ANIMATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course covers the fundamental ideas and principles of 2-dimensional form and animation. Emphasis on basic design concepts, pictorial composition, color theory, vocabulary, media and processes that allow for the creation of 2D animations that are specifically Web ready. Topics covered include (but are not limited to) principles and techniques of motion graphics, graphic files types, frame-by-frame animation, tweened animation and if the software used permits, combining a scripting language with animation.

Quarter Course Equivalency: CIS 1261

CIST 2720 - ONLINE GAME PROGRAMMING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): COMP 1000

Co-requisite(s): None

Basic introduction to creating online games. Use web deployable language to create and manipulate graphics, sound, input and develop a game. Single and multiplayer games will be addressed.

Quarter Course Equivalency: CIS 1262

CIST 2730 - INTRODUCTION TO 3D ANIMATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course is an introduction to the creation and manipulation of 3D objects. Topics include 3D types and tools, 3D objects, and inverse kinematics.

Quarter Course Equivalency: New

CIST 2731 - INTERMEDIATE 3D ANIMATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course is an intermediate class on the creation and manipulation of 3D objects. Topics include: 3D types and tools, UV mapping, and texture and animate 3D objects.

Quarter Course Equivalency: New

CIST 2732 - 3D CHARACTER ANIMATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course covers 3D character creation and animation using key-framing and inverse kinematics. Topics include character setup, character design and animation.

Quarter Course Equivalency: CIS 1274

CIST 2733 - 3D GRAPHICS FOR GAMING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course covers the creation and manipulation of 3D objects and animations in an actual 3D game engine using the latest in industry standard or open source software.

Topics covered include graphic types, organizational methods, drawing tools, object modeling, character rigging, bones, nurb manipulation and normal mapping.

Quarter Course Equivalency: CIS 1258

CIST 2734 - 3D GRAPHICS FOR GAMING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course is an intermediate look at the creation and manipulation of 3D objects and animations in an actual 3D game engine using the latest in industry standard or open source software. Topics covered include graphic types, organizational methods, drawing tools, advanced level design and material construction, volumes, physics and particle effects.

Quarter Course Equivalency: CIS 1258

CIST 2736 - INTRODUCTION TO MOTION CAPTURE

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course covers the creation of 3D objects and the use of Motion Capture and its use in a 3D project. Topics include motion capture camera/sensor setup and 3D integration.

Quarter Course Equivalency: New

CIST 2740 - INTRODUCTION TO GAME DEVELOPMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): CIST 1001

Introduction to video games genres, gaming evolution, gaming attributes, market environment, competition analysis, design document development, asset pipeline (development of game components), game mechanics (rules), technology architecture, platforms, story composition, interactive dialogue, statistical game balancing, project planning and prioritization for development schedules, creation of nonelectronic rapid prototypes with emphasis on the student's first exposure to game creation and mechanics.

Quarter Course Equivalency: CIS 2520

CIST 2741 - ADVANCED GAME DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): CIST 2740

Co-requisite(s): None

Advanced Game Design incorporates all of the basic game design elements into a continuing production process, taking an idea from inception through completion in a timely and cost effective fashion. Each student will be expected to fulfill the duties of each member of a game design team, learning every aspect of the process in order to be able to substitute wherever and whenever necessary. It is suggested that the quality and completeness of a single, class-wide project have some universal impact on the grades of each student, further enforcing the notion that every team member not only participates in the project, but that the project itself affects in the success of each team member. Lab will use industry tools to rapidly prototype ideas into practical game mechanics and provide the foundation for future game projects.

Quarter Course Equivalency: CIS 2521

CIST 2750 - GAME DESIGN

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course covers the history of the Video Game Industry and gives a hands on approach to the design methodologies used to create an interactive 2D and 3D video game. Topics include story and script development, storyboarding, character analysis and creation, interface and sound design and game documentation.

Quarter Course Equivalency: CIS 1257

CIST 2751 - GAME DEVELOPMENT I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course covers the design and creation of a 2D interactive game using the latest in industry standard.

Topics include game development and concepts, sprite creation using .png and .giff formats, object placement and orientation, ActionScript, pseudocode and level and class design.

Quarter Course Equivalency: CIS 1255

CIST 2752 - GAME DEVELOPMENT II

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course covers the design, creation and implementation of 2D and 3D elements as well as programming concepts into an interactive application. Topics include interface design, 3D object creation, game flow and scripting.

Quarter Course Equivalency: CIS 1256

CIST 2753 - SCRIPT WRITING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course covers the fundamentals of script writing for different mediums like television and video games. Topics include creating the narrative, story structure, story elements, plot, game story devices and documentation.

Quarter Course Equivalency: DMT 105

CIST 2754 - STORY BOARDING

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course covers the fundamentals of planning, lay-out design, and story-boarding animated plot sequences. Topics include plot, action flow, photomatics, animatics and design.

Quarter Course Equivalency: DMT 106

CIST 2759 - MATHEMATICS FOR GAME DEVELOPERS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course emphasizes the math skills needed in 2D game design. These skills include trigonometric properties, vectors, and motion in one dimension.

Quarter Course Equivalency: CIS 1259

CIST 2801 - INTERACTIVE VIDEO PRODUCTION I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course will be the first of three courses designed to train individuals in the skills needed to package information content ready for an interactive video delivery system.

Quarter Course Equivalency: CIS 2801

CIST 2802 - INTERACTIVE VIDEO PRODUCTION II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): CIST 2801

Co-requisite(s): None

This course will be the second of three courses designed to train individuals in the skills, needed to package information content ready for an interactive video delivery system.

Quarter Course Equivalency: CIS 2802

CIST 2803 - INTERACTIVE VIDEO PRODUCTION III

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): CIST 2802

Co-requisite(s): None

This course will be the third of three courses designed to train individuals in the skills needed to package information content ready for an interactive video delivery system.

Quarter Course Equivalency: CIS 2803

CIST 2921 - IT ANALYSIS, DESIGN, AND PROJECT MANAGEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CIST 1305

Co-requisite(s): None

IT Analysis, Design, and Project Management will provides a review and application of systems life cycle development methodologies and project management. Topics include: Systems planning, systems analysis, systems design, systems implementation, evaluation, and project management.

Quarter Course Equivalency: CIS 112

CIST 2931 – ADVANCED SYSTEMS PROJECT

Credit Hours: 4

Weekly Contact Hours: Lecture – 2 Lab – 5

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

This is a capstone course providing a realistic business experience for students working in a team to develop a complete systems project in one academic term. Topics include: Project Management, Systems Design and Development, Software Development Methodologies, User Interface Design, File Maintenance Programming, Program Design, Systems Documentation, User Documentation, Presentation, and Demonstration.

Quarter Course Equivalency: New

CIST 2950 - WEB SYSTEMS PROJECT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

CIST 2950 is a capstone course providing a realistic experience for students working in a team to develop a complete web systems project.

Quarter Course Equivalency: New

CIST 2991 - CIST INTERNSHIP I

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

Provides the instructor and student a 3 credit hour opportunity to develop special learning environments. Instruction is delivered through occupational work experiences, practicums, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements. To attain additional internship credit hours, the student can take CIST2992 (4 credit hours) and/or CIST2993 (5 credit hours).

Quarter Course Equivalency: New

CIST 2992 – CIST INTERNSHIP II

Credit Hours: 4

Weekly Contact Hours: Lecture – 0 Lab – 12

Pre-requisite(s): None

Co-requisite(s): None

Provides the instructor and student a 4 credit hour opportunity to develop special learning environments. Instruction is delivered through occupational work experiences, practicums, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements. To attain additional internship credit hours, the student can take CIST2991 (3 credit hours) and/or CIST2993 (5 credit hours).

Quarter Course Equivalency: CIS 2556

CIST 2993 – CIST INTERNSHIP III

Credit Hours: 5

Weekly Contact Hours: Lecture – 0 Lab – 15

Pre-requisite(s): None

Co-requisite(s): None

Provides the instructor and student a 5 credit hour opportunity to develop special learning environments. Instruction is delivered through occupational work experiences, practicums, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements. To attain additional

internship credit hours, the student can take CIST2991 (3 credit hours) and/or CIST2992 (4 credit hours).

Quarter Course Equivalency: New

CIST 2996 - COMPUTER REPAIR TECH INTERNSHIP I

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): CIST 1122, CIST 1130, COMP 1000

Co-requisite(s): None

This course will give students the opportunity to become well-rounded PC Repair Specialists and to enhance skills learned in the Computer Information Systems programs. Students will also have the opportunity to work on specific activities by participating in ongoing projects. Material and timed tests provided in the course are designed to prepare students for Industry Certification Exams. This course is the first of a series of two.

Quarter Course Equivalency: CIS 171

CIST 2998 - COMPUTER REPAIR TECH INTERNSHIP II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): CIST 1122, CIST 1130, COMP 1000

Co-requisite(s): None

This course will continue giving students the opportunity to become well-rounded PC Repair Specialists and to master skills learned in the Computer Information Systems programs. Students will continue working on specific activities by participating in ongoing projects, and by working on special network activities and completing advanced PC repair projects. The level of the material and timed tests provided in the course are advanced. The tests are designed to help prepare students to take certifications.

Quarter Course Equivalency: CIS 172

CLBT 1010 - INTRODUCTION TO CLINICAL LAB TECHNOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces students to the terms, concepts, procedures, and equipment used in a professional clinical laboratory. Topics include: professional ethics and regulatory agencies; laboratory safety, equipment, and techniques; phlebotomy/specimen processing; related lab math, quality control concepts; process improvement; documentation and computer usage; and point of care testing. Practical experience in phlebotomy will be provided in the institution laboratory and/or the clinical setting.

Quarter Course Equivalency: CLT 101 or MLT 101

CLBT 1030 - URINALYSIS/BODY FLUIDS

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): None

Co-requisite(s): BIOL 2113, BIOL 2113L, CLBT 1010

Provides theory and techniques required to conduct tests on urine and various body fluids. Theory and tests are related to disease states and diagnosis. Topics include: fundamental theory of urinalysis; basic urinalysis tests; correlation of urinalysis to disease states; related lab math; body fluid tests; special urinalysis and related testing; and safety and quality control.

Quarter Course Equivalency: CLT 103 or MLT 103

CLBT 1040 - HEMATOLOGY/COAGULATION

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 6

Pre-requisite(s): None

Co-requisite(s): ALHS 1090, BIOL 2113, BIOL 2113L, CLBT 1010

Introduces the fundamental formation, function, and degradation of blood cells. Topics include: reticuloendothelial system and blood cell formation, complete blood count and differential, other related blood test, related lab math, correlation of test results to disease states, coagulation and fibrinolysis, instrumentation for hematology and coagulation, critical values and blood cell dyscrasias, safety and quality control, and process improvement.

Quarter Course Equivalency: CLT 104 or MLT 104

CLBT 1050 - SEROLOGY/IMMUNOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): None

Co-requisite(s): CLBT 1010

Introduces the fundamental theory and techniques applicable to serology and immunology practice in the medical laboratory. Topics include: immune system, antigen and antibody reactions, immunological diseases, related lab math, common serological techniques, safety and quality control, and process improvement.

Quarter Course Equivalency: CLT 105 or MLT 105

CLBT 1060 - IMMUNOHEMATOLOGY

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 5

Pre-requisite(s): CLBT 1050

Co-requisite(s): None

Provides an in-depth study of immunohematology principles and practices as applicable to medical laboratory technology. Topics include: genetic theory and clinical applications, immunology, donor unit collection, related lab math, pre-transfusion testing, management of disease states and

transfusion reactions, safety and quality control, and process improvement.

Quarter Course Equivalency: CLT 106 or MLT 106

CLBT 1070 - CLINICAL CHEMISTRY

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 7

Pre-requisite(s): BIOL 2114, BIOL 2114L

Co-requisite(s): CHEM 1212/CHEM 1212L or CHEM 1151/CHEM 1151L, CLBT 1010

Develops concepts and techniques of clinical chemistry applicable to medical laboratory technology. Topics include: carbohydrates, electrolytes and acid-base balance, nitrogenous compounds, related lab math, enzymes and endocrinology, liver functions, lipids, toxicology and therapeutic drug monitoring, safety and quality control, correlation of disease states, process improvement (team approach), and critical thinking skills.

Quarter Course Equivalency: CLT 107 or MLT 107

CLBT 1080 - MICROBIOLOGY

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 6

Pre-requisite(s): CLBT 1010

Co-requisite(s): None

Introduces fundamental microbiology and parasitology theory and techniques applicable to disease state identification. Topics include: microbiology fundamentals; basic techniques; clinical microbiology; related lab math; anti-microbial sensitivity; safety and quality control; parasitology; mycology, mycobacteriology, and virology; correlation of disease states; and process improvement.

Quarter Course Equivalency: CLT 108 or MLT 108

CLBT 2090 - CLINICAL PHLEBOTOMY, URINALYSIS, AND SEROLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): CLBT 1010, CLBT 1030, CLBT 1050

Co-requisite(s): None

Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: urinalysis tests, serological tests and techniques, blood and specimen processing, correlation of test results to disease states, safety and quality control, and quality assurance. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision.

Quarter Course Equivalency: CLT 109 or MLT 109

CLBT 2100 - CLINICAL IMMUNOHEMATOLOGY PRACTICUM

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): CLBT 1060

Co-requisite(s): None

Provides students with an opportunity for in-depth application and reinforcement of immunohematology principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: specimen processing; slide and tube immunological techniques; criteria for special techniques; component and therapy practices; management of disease states; transfusion complications; safety; documentation/quality control; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision.

Quarter Course Equivalency: CLT 110 or MLT 110

CLBT 2110 - CLINICAL HEMATOLOGY/ COAGULATION PRACTICUM

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): CLBT 1040

Co-requisite(s): None

Provides students with an opportunity for in-depth application and reinforcement of hematology/coagulation principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: complete blood count and differentials; other related blood tests; coagulation and fibrinolysis tests; correlation of test results to disease states and critical values; instrumentation; safety; documentation/quality control; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision.

Quarter Course Equivalency: CLT 111 or MLT 111

CLBT 2120 - CLINICAL MICROBIOLOGY PRACTICUM

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): CLBT 1080

Co-requisite(s): None

Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical laboratory job setting. This clinical practicum

allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: specimen inoculations; stains; culture work-ups; bacterial identification; anti-microbial sensitivity; media preparation; safety; documentation/quality control; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision.

Quarter Course Equivalency: CLT 112 or MLT 112

CLBT 2130 - CLINICAL CHEMISTRY PRACTICUM

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): CLBT 1070

Co-requisite(s): None

Provides students with an opportunity for in-depth application and reinforcement of chemistry principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: therapeutic drugs and toxicology; automated and manual chemistry; immuno chemistry; special chemistry; safety; correlation of test results to disease states and critical values; instrumentation; documentation/quality control; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision.

Quarter Course Equivalency: CLT 113 or MLT 113

CLBT 2200 – CLT CERTIFICATION REVIEW

Credit Hours: 2

Weekly Contact Hours: Lecture – 0 Lab – 4

Pre-requisite(s): CLBT 1030, CLBT 1040, CLBT 1050, CLBT 1060, CLBT 1070, CLBT 1080

Co-requisite(s): None

Provides a review of basic knowledge from previous courses and helps the student prepare for national certification examinations for the medical laboratory technician level. Topics include review of: professional ethics, regulatory agencies, safety, and fundamental techniques; phlebotomy and specimen collection and processing; quality control concepts; computer applications; urinalysis and body fluids; hematology and coagulation; immunology and serology; immunohematology; clinical chemistry in solutions; microbiology; parasitology, mycology, mycobacteriology, and virology; and test taking skills.

Quarter Course Equivalency: New

COLL 1000 – COLLEGE SUCCESS AND SURVIVAL SKILLS

Credit Hours: 2

Weekly Contact Hours: Lecture – 2 Lab – 0

Pre-requisite(s): None

Co-requisite(s): None

This course is designed to provide tools to assist students to acquire skills necessary to achieve academic and professional success in their chosen occupational/technical program of study. Topics include: Getting off to a Good Start, Learning and Personality Styles, Time and Money Management, Study and Test Taking Skills, Stress Management and Wellness, Communication Skills, and Career Exploration.

In addition to the above, Wiregrass Georgia Technical College students are also introduced to BanWeb, ANGEL, Student Email, Financial Aid options, and computer basics. Currently, only Learning Support students are required to take this course

Quarter Course Equivalency: New

COMP 1000 - INTRODUCTION TO COMPUTERS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): None

Co-requisite(s): Provisional Admission

Introduces the fundamental concepts, terminology, and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use.

Topics include an introduction to computer terminology, the Windows environment, Internet and email, word processing software, spreadsheet software, database software, and presentation software.

Quarter Course Equivalency: SCT 100

COSM 1000 - INTRODUCTION TO COSMETOLOGY THEORY

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces fundamental both theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include: state rules, and regulations; state regulatory agency, image; bacteriology; decontamination and infection control, chemistry fundamentals, safety, Hazardous Duty Standards Act compliance, and anatomy and physiology.

Quarter Course Equivalency: COS 100

COSM 1010 - CHEMICAL TEXTURE SERVICES

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): COSM 1000

Provides instruction in the chemistry and chemical reactions of permanent wave solutions and relaxers, application of

permanent waves and relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Topics include: permanent wave techniques, chemical relaxer techniques, chemistry, physical and chemical change, safety procedures, permanent wave and chemical relaxer application procedures, hair analysis, scalp analysis, permanent wave procedures (in an acceptable time frame), relaxer application (in an acceptable time frame), and Hazardous Duty Standards Act Compliance.

Quarter Course Equivalency: COS 101 and COS 108

COSM 1020 - HAIR CARE AND TREATMENT

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): COSM 1000

Introduces the theory, procedures and products used in the care and treatment of the scalp and hair, disease and disorders and their treatments and the fundamental theory and skills required to shampoo, condition, and recondition the hair and scalp.

Quarter Course Equivalency: COS 103 and COS 105

COSM 1030 - HAIRCUTTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): COSM 1000

Introduces the theory and skills necessary to apply haircutting techniques, advanced haircutting techniques, proper safety and decontamination precautions, hair design elements, cutting implements, head, hair and body analysis, and client consultation.

Quarter Course Equivalency: COS 106 and COS 107

COSM 1040 - STYLING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): COSM 1000

Introduces the fundamental theory and skills required to create shapings, pin curls, fingerwaves, roller placement, blow dry styling, thermal curling, thermal pressing, thermal waving, artificial hair and augmentation, and comb-outs. Laboratory training includes styling training on manikin. Topics include: braiding/intertwining hair, styling principles, pin curls, roller placement, fingerwaves, skip waves, ridge curls, blow dry styling, thermal curling, thermal pressing, thermal waving, artificial hair and augmentation, comb-outs, and safety precautions.

Quarter Course Equivalency: COS 105 and COS 111

COSM 1050 - HAIR COLOR

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): COSM 1000

Introduces the theory and application of temporary, semipermanent, demipermanent-deposit only, and permanent hair coloring, hair lightening, and color removal products and application. Topics include: principles of color theory, hair structure, color, tone, classifications of color, hair lightening, color removal, application procedures, safety precautions, client consultation, product knowledge, haircolor challenges, corrective solutions, and special effects.

Quarter Course Equivalency: COS 109

COSM 1060 - FUNDAMENTALS OF SKIN CARE

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): COSM 1000

This course provides a comprehensive study in care of the skin for theory and practical application. Emphasis will be placed on client consultation, safety precautions, skin conditions, product knowledge, basic facials, facial massage, corrective facial treatments, hair removal, and make-up application. Other topics in this course include advanced skin treatments in electrotherapy, light therapy, galvanic current, high frequency, and microdermabrasion.

Quarter Course Equivalency: COS 103 and COS 110

COSM 1070 - NAIL CARE AND ADVANCED TECHNIQUES

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): COSM 1000

Provides training in manicuring, pedicuring and advanced nail techniques. Topics include: implements, products and supplies, hand and foot anatomy and Physiology, diseases and disorders, manicure techniques, pedicure techniques, nail product chemistry, safety precautions and practices, and advanced nail techniques (wraps/tips/acrylics).

Quarter Course Equivalency: COS 112

COSM 1080 - COSMETOLOGY PRACTICUM I

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 9

Pre-requisite(s): COSM 1000, COSM 1010, COSM 1020, COSM 1030, COSM 1040, COSM 1050

Co-requisite(s): COSM 1060, COSM 1070

Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases

of cosmetology is required by the Georgia State Board of Cosmetology. This course includes a portion of the required hours for licensure. Topics include: permanent waving and relaxers; various hair color techniques, foiling and lightening; skin, scalp, and hair treatments; haircutting; styling; manicure/pedicure/advanced nail techniques; dispensary; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

Quarter Course Equivalency: COS 113

COSM 1090 - COSMETOLOGY PRACTICUM II

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 9

Pre-requisite(s): None

Co-requisite(s): COSM 1080

Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color, foiling, lightening, skin, scalp, and hair treatments; haircutting; clipper design, precision cutting, styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; product knowledge, customer service skills, client retention, State Board Rules and Regulations guidelines, and State Board foundation prep.

Quarter Course Equivalency: COS 114

COSM 1100 - COSMETOLOGY PRACTICUM III

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 9

Pre-requisite(s): None

Co-requisite(s): COSM 1090

Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications for completion of state board service credit requirements for this course may be met in a laboratory setting. Topics include: texture services; permanent waving and relaxers; haircolor and lightening; skin, scalp, and hair treatment; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

Quarter Course Equivalency: COS 115

COSM 1110 - COSMETOLOGY PRACTICUM IV

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 9

Pre-requisite(s): None

Co-requisite(s): COSM 1100

Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; dispensary; styling; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; and state licensure preparation.
Quarter Course Equivalency: COS 116

COSM 1120 - SALON MANAGEMENT

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): None
Co-requisite(s): COSM 1000
Emphasizes the steps involved in opening and operating a privately owned salon. Topics include: law requirements regarding employment, tax payer education / federal and state responsibilities, law requirements for owning and operating a salon business, business management practices, and public relations and career development.
Quarter Course Equivalency: COS 117

COSM 1180 - NAIL CARE I

Credit Hours: 5
Weekly Contact Hours: Lecture - 0 Lab - 15
Pre-requisite(s): COSM 1000, COSM 1070
Co-requisite(s): None
Provides additional experience in Manicuring and Pedicuring techniques required of applicants for state licensure. Emphasis is placed on performance, using live models in an actual or simulated occupational setting. Topics include: manicure, nail repair, artificial nails, pedicure, nail art, reception, dispensary, advanced/new techniques, documentation, customer service skills, safety precautions, federal/state agency compliance, and state board foundation prep.
Quarter Course Equivalency: COS 118

COSM 1190 - NAIL CARE II

Credit Hours: 5
Weekly Contact Hours: Lecture - 1 Lab - 12
Pre-requisite(s): None
Co-requisite(s): COSM 1180
Provides nail care experience on live models. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications required by the state board of cosmetology in theory and service credit requirements for this course. Emphasis is placed on performance, using live models in an actual or simulated occupational setting. Topics include: manicure, nail repair, artificial nails, pedicure, nail art, electric drill, reception,

dispensary, advanced/new techniques, documentation, customer service skills, safety precautions, federal/state agency compliance, and state board comprehension.
Quarter Course Equivalency: COS 119

CRJU 1010 - INTRODUCTION TO CRIMINAL JUSTICE

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
Introduces the development and organization of the criminal justice system in the United States. Topics include: the American criminal justice system; constitutional limitations; organization of enforcement, adjudication, and corrections; and career opportunities and requirements.
Quarter Course Equivalency: CRJ 101

CRJU 1030 - CORRECTIONS

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Program Admission
Co-requisite(s): None
Provides an analysis of all phases of the American correctional system and practices, including its history, procedures, and objectives. Topics include: history and evolution of correctional facilities; legal and administrative problems; institutional facilities and procedures; probation, parole, and prerelease programs; alternative sentencing; rehabilitation; community involvement; and staffing.
Quarter Course Equivalency: CRJ 103

CRJU 1040 - PRINCIPLES OF LAW ENFORCEMENT

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course examines the principles of the organization, administration, and duties of federal, state and local law enforcement agencies. Topics include: history and philosophy of law enforcement, evaluation of administrative practices, problems in American law enforcement agencies, emerging concepts, professionalism, and community crime prevention programs.
Quarter Course Equivalency: CRJ 104

CRJU 1043 - PROBATION AND PAROLE

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course will cover the history of both juvenile and adult probation as well as the history of parole. The probation

and parole systems will be covered generally with a special emphasis on the Georgia systems and related laws. Topics include: history and philosophy of probation and parole; function of the probation and parole systems; Georgia law related to probation and parole; characteristics and roles of probation and parole officers; and special issues and programs of probation and parole.

Quarter Course Equivalency: CRJ 143

CRJU 1054 - POLICE OFFICER SURVIVAL

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course examines the critical issues involved in the survival of a police officer in all aspects including their physical, mental, and psychological wellbeing. Emphasis is placed on personal protection skills, defensive tactics, handcuffing techniques, patrol tactics, vehicle stops, building searches and use of force.

Quarter Course Equivalency: CRJ 154 or CRJ 158

CRJU 1062 - METHODS OF CRIMINAL INVESTIGATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course presents the fundamentals of criminal investigation. The duties and responsibilities of the investigator both in field and in the courtroom are highlighted. Emphasis is placed on techniques commonly utilized by investigative personnel as well as the procedures used for investigating various crimes.

Quarter Course Equivalency: CRJ 162

CRJU 1063 - CRIME SCENE PROCESSING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course presents students with practical exercises dealing with investigating crime scenes and gathering various forms of physical evidence. Emphasis is placed on crime scene assessment, search, fingerprinting, and evidence collection. Topics include: crime scene management, evidence characteristics, identification, documentation and collection as well as techniques for developing and lifting latent

Quarter Course Equivalency: New

CRJU 1065 - COMMUNITY-ORIENTED POLICING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Presents the fundamentals for the community-oriented policing philosophy, including the comparison of traditional and community policing philosophies; law enforcement and community relationships; importance of political and public support and involvement; attitudinal changes involving the roles of police management, supervisors and line personnel; creation of partnerships with community organizations, businesses, private security, other governmental agencies, and special interest groups; and police problem-solving methodologies. Topics include: foundations of community-oriented policing, partnerships and problem-solving in community-oriented policing, and community-oriented policing projects and programs.

Quarter Course Equivalency: CRJ 165

CRJU 1068 - CRIMINAL LAW FOR CRIMINAL JUSTICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course introduces criminal law in the United States, but emphasizes the current specific status of Georgia criminal law. The course will focus on the most current statutory contents of the Official Code of Georgia Annotated (O.C.G.A.) with primary emphasis on the criminal and traffic codes. Topics include: historic development of criminal law in the United States; statutory law, Georgia Code (O.C.G.A.) Title 16 - Crimes and Offenses; statutory law, Georgia Code (O.C.G.A.) Title 40 - Motor Vehicle and Traffic Offenses; and Supreme Court rulings that apply to criminal law.

Quarter Course Equivalency: CRJ 168

CRJU 1072 - INTRODUCTION TO FORENSIC SCIENCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

The origin, history and role of forensic science in the investigative process. Philosophical, rational and practical framework that supports a case investigation will be outlined. The unifying principles of forensic science, the rooting of forensic science in the pure sciences, and the unique ways in which a forensic scientist must think will also be discussed. The special areas of forensic science will be explored.

Quarter Course Equivalency: CRJ 172

CRJU 1075 - REPORT WRITING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Explains and demonstrates the effectiveness of the entire criminal investigation process by the quality of notes reports, and accurate documentation. An examination of what goes into the preparation, content, elements, mechanics, and format of documenting the criminal investigation process. Topics include: Field notes, initial information, observations, evidence, victims, witnesses, property, neighborhood canvass, crime scene, laboratory analysis and results, investigative follow-up, suspect statements, and the characteristics essential to quality report writing.

CRJU 1400 - ETHICS AND CULTURAL PERSPECTIVES FOR CRIMINAL JUSTICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides an exploration ethics and cultural perspectives in criminal justice. In presenting ethics, both the individual perspective and the organizational standpoint will be examined. Four areas of ethical decision making opportunities are studied including: law enforcement ethics; correctional ethics; legal profession ethics; and policymaking ethics. The presentation of cultural perspectives is designed to aid law enforcement officers to better understand and communicate with members of other cultures with whom they come in contact in the line of duty. Topics include: defining and applying terms related to intercultural attitudes, role-play activities related to intercultural understanding, developing interpersonal/intercultural communication competence, and development of personal intercultural growth plan.

Quarter Course Equivalency: CRJ 140 and CRJ 212

CRJU 2020 - CONSTITUTIONAL LAW FOR CRIMINAL JUSTICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course emphasizes those provisions of the Bill of Rights which pertain to criminal justice. Topics include: characteristics and powers of the three branches of government; principles governing the operation of the U.S. Constitution, the Bill of Rights and the Fourteenth Amendment.

Quarter Course Equivalency: CRJ 202

CRJU 2050 - CRIMINAL PROCEDURE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the substantive law of major crimes against persons and property. Attention is given to observation of courtroom trials. Topics include: laws of arrest and search and seizure; procedures governing arrest, trial, and administration of criminal sanctions; rules of evidence; general court procedures; rights and duties of officers and citizens; and Supreme Court rulings that apply to Law Enforcement/Overview of Constitutional Law.

Quarter Course Equivalency: CRJ 105

CRJU 2060 - CRIMINOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the nature, extent, and factors related to criminal behavior, and the etiology of criminal offenses and offenders. Topics include: sociological, psychological, and biological causes of crime; effectiveness of theories in explaining crime; theory integration; and application of theory to selected issues.

Quarter Course Equivalency: CRJ 206

CRJU 2070 - JUVENILE JUSTICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Analyzes the nature, extent, and causes of juvenile delinquency, and examines processes in the field of juvenile justice. Topics include: survey of juvenile law, comparative analysis of adult and juvenile justice systems, and prevention and treatment of juvenile delinquency.

Quarter Course Equivalency: CRJ 207

CRJU 2090 - CRIMINAL JUSTICE PRACTICUM

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides experiences necessary for further professional development and exposure to related agencies in the criminal justice field. The student will pursue a professional research project supervised by the instructor. Topics include: criminal justice theory applications.

Quarter Course Equivalency: CRJ 209

CRJU 2100 - CRIMINAL JUSTICE EXTERNSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides experiences necessary for further professional development and exposure to related agencies in the criminal justice field. The student will pursue an externship in a related agency supervised by the instructor. Topics include: criminal justice theory applications.
Quarter Course Equivalency: New

CRJU 2110 - HOMELAND SECURITY

Credit Hours: 3

Weekly Contact Hours: Lecture –3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

The course provides an introduction to the principles of homeland security, roles and responsibilities of constituencies and implications for criminal justice fields. Topics include: intelligence and warning, border and transportation security, domestic counterterrorism, protecting critical infrastructure, defending against catastrophic threats, and emergency preparedness and response.

CRJU 2201 - CRIMINAL COURTS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course examines the historical context on the development, functions, and controversies in the courts system. Topics include: introduction to the courts; participants of a trial; courtroom processes; and the post conviction process.

Quarter Course Equivalency: CRJ 2201

CTDL 1010 - FUNDAMENTALS OF COMMERCIAL DRIVING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

Fundamentals of Commercial Driving introduces students to the transportation industry, federal and state regulations, records and forms, industrial relations, and other non-driving activities. This course provides an emphasis on safety that will continue throughout the program.

Quarter Course Equivalency: CTD 101

CTDL 1020 - COMBINATION VEHICLE BASIC OPERATION AND RANGE WORK

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): CTDL 1010

This course familiarizes students with truck instruments and controls and performing basic maneuvers required to drive

safely in a controlled environment and on the Driving Range. Each student must receive 12 hours behind the wheel (BTW) instructional time in range operations such as operating a tractor trailer through clearance maneuvers, backing, turning, parallel parking and coupling/uncoupling.
Quarter Course Equivalency: CTD 102

CTDL 1030 - COMBINATION VEHICLE ADVANCED OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 7

Pre-requisite(s): None

Co-requisite(s): CTDL 1020

Advanced Operations develops students driving skills under actual road conditions. The classroom part of the course stresses following safe operating practices. These safe operating practices are integrated into the development of driving skills on the road. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time on the street/road. In addition the student must have a minimum program total of forty four (44) hours BTW instructional time in any combination (with CTDL 1020) of range and street/road driving. Note: state law requires that whenever a combination vehicle is operated on public roads an instructor must be present in the vehicle while the student is driving.

Quarter Course Equivalency: CTD 103

CUUL 1000 - FUNDAMENTALS OF CULINARY ARTS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): None

Co-requisite(s): MATH 1012

Provides an overview of the professionalism in culinary arts, culinary career opportunities, Chef history, pride, and esprit d corp. Introduces principles and practices necessary to food, supply, and equipment selection, procurement, receiving, storage, and distribution. Topics include: cuisine, food service organizations, career opportunities, food service styles, basic culinary management techniques, professionalism, culinary work ethics, quality factors, food tests, pricing procedures, cost determination and control, selection, procurement, receiving, storage, and distribution. Laboratory demonstration and student experimentation parallel class work.

Quarter Course Equivalency: CUL 100 and CUL 116

CUUL 1110 - CULINARY SAFETY AND SANITATION

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Emphasizes fundamental kitchen and dining room safety, sanitation, maintenance, and operation procedures. Topics

include: cleaning standards, O.S.H.A. M.S.D.S. guidelines, sanitary procedures following SERV-SAFE guidelines, HACCAP, safety practices, basic kitchen first aid, operation of equipment, cleaning and maintenance of equipment, dishwashing, and pot and pan cleaning. Laboratory practice parallels class work.

Quarter Course Equivalency: CUL 110

CUUL 1120 - PRINCIPLES OF COOKING

Credit Hours: 6

Weekly Contact Hours: Lecture - 2 Lab - 10

Pre-requisite(s): None

Co-requisite(s): CUUL 1110

This course introduces fundamental food preparation terms, concepts, and methods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: weights and measures, conversions, basic cooking principles, methods of food preparation, recipe utilization, and nutrition. Laboratory demonstrations and student experimentation parallel class work.

Quarter Course Equivalency: CUL 112 and CUL 114

CUUL 1129 - FUNDAMENTALS OF RESTAURANT OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): CUUL 1120

Co-requisite(s): None

Introduces the fundamentals of dining and beverage service and experience in preparation of a wide variety of quantity foods. Course content reflect American Culinary Federation Education Institute apprenticeship training objectives. Topics include: dining service/guest service, dining service positions and functions, international dining services, restaurant business laws, preparation and setup, table side service, and beverage service and setup, kitchen operational procedures, equipment use, banquet planning, recipe conversion, food decorating, safety and sanitation, and production of quantity food. Laboratory practice parallels class work.

Quarter Course Equivalency: CUL 127 and CUL 129

CUUL 1220 - BAKING PRINCIPLES

Credit Hours: 5

Weekly Contact Hours: Lecture - 2 Lab - 7

Pre-requisite(s): CUUL 1120

Co-requisite(s): None

Baking Principles presents the fundamental terms, concepts, and methods involved in preparation of yeast and quick breads and baked products. Emphasis is placed on conformance of sanitation and hygienic work habits with health laws. Course content reflects American Culinary Federation Educational Institute cook and pastry apprenticeship training objectives, along with Retail Bakery

Association training program. Topics include: baking principles; Science and use of baking ingredients for breads, desserts, cakes, pastries; weights, measures, and conversions; preparation of baked goods, baking sanitation and hygiene, baking supplies and equipment. Laboratory demonstrations and student experimentation parallel class work.

Quarter Course Equivalency: CUL121 and CUL 122

CUUL 1320 - GARDE MANGER

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): CUUL 1120

Co-requisite(s): None

Introduces basic pantry manger principles, utilization, preparation, and integration into other kitchen operations. Course content reflects American Culinary Federation Educational Institute apprenticeship pantry, garnishing, and presentation training objectives. Topics include: pantry functions; garnishes, carving, and decorating; buffet presentation; cold preparations; hot/cold sandwiches; salads, dressings and relishes; breakfast preparation; hot/cold hors d'oeuvres; chateaufroids, gelees, and molds; and pats and terrines. Laboratory practice parallels class work.

Quarter Course Equivalency: CUL 130 and CUL 132

CUUL 1370 - CULINARY NUTRITION AND MENU DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): CUUL 1120

Co-requisite(s): None

This course emphasizes menu planning for all types of facilities, services, and special diets. Topics include: menu selection, menu development and pricing, nutrition, special diets, cooking nutritional foods, and organics. Laboratory demonstrations and student management and supervision parallel class work.

Quarter Course Equivalency: CUL 137

CUUL 1400 - BASIC NUTRITION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will emphasize nutrients and nutritional needs. Special needs and diets will be explored with an emphasis on manipulating meal components in order to meet the needs of these diets. Nutrition for different phases of the life cycle and current trends in nutrition will also be explored.

Quarter Course Equivalency: CUL 140

CUUL 2130 - CULINARY PRACTICUM AND LEADERSHIP

Credit Hours: 6

Weekly Contact Hours: Lecture - 2 Lab - 12

Pre-requisite(s): CUUL 1220, CUUL 1320

Co-requisite(s): None

This course familiarizes the student with the principles and methods of sound leadership and decision making in the hospitality industry and provides the student with the opportunity to gain management/supervision experience in an actual job setting. Students will be placed in an appropriate restaurant, catering, or other food service business for four days per week throughout the semester. On-the-job training topics include: restaurant management/on-off premise catering/food service business, supervisory training, and management training, on-off premise catering, hotel kitchen organization, kitchen management, restaurant kitchen systems, institutional food systems, kitchen departmental responsibilities, and kitchen productivity. Topics include: basic leadership principles and how to use them to solicit cooperation, use of leadership to develop the best possible senior-subordinate relationships, the various decision making processes, the ability to make sound and timely decisions, leadership within the framework of the major functions of management, and delegation of authority and responsibility in the hospitality industry.

Quarter Course Equivalency: CUL 133 and CUL 216

CUUL 2140 - ADVANCED BAKING AND INTERNATIONAL CUISINE

Credit Hours: 6

Weekly Contact Hours: Lecture - 2 Lab - 10

Pre-requisite(s): CUUL 1220, CUUL 1320

Co-requisite(s): None

This course introduces international cuisine and acquisition of advanced cookery techniques. Course content reflects American Culinary Federation Educational Institute cook apprenticeship training objectives and provides background for those aspiring to become chefs. Topics include: international cuisine, advanced grill cookery, advanced vegetable cookery, advanced meat cookery, advanced line cookery, advanced fry cookery and nutrition. Laboratory practice parallels class work. Provides in-depth experience in preparing many types of baked goods commonly found in restaurants and hotels. Course content reflects American Culinary Federation and Retail Bakery Association training objectives and provides background for those aspiring to become pastry chefs or bakery supervisors. Topics include: breads, pies, cakes, pastry dough, puff pastry, icing, filling, and candy. Laboratory practice parallels class work.

Quarter Course Equivalency: CUL 124 and CUL 224

CUUL 2160 - CONTEMPORARY CUISINE

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): CUUL 1220, CUUL 1320

Co-requisite(s): None

This course emphasizes all modern cuisine and introduces management concepts necessary to the functioning of a commercial kitchen. Topics include: international cuisine, cuisine trends, kitchen organization, kitchen management, kitchen supervision, competition entry, nutrition, menu selection, layout and design, and on/off premise catering. Laboratory demonstration and student experimentation parallel class work.

Quarter Course Equivalency: CUL 215 and CUL 220

CUUL 2190 - PRINCIPLES OF CULINARY LEADERSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Familiarizes the student with principles, skills, methods, and behaviors necessary for sound leadership of people in their job responsibilities. Emphasis will be placed on real-life concepts, personal skill development, applied knowledge, and managing human resources. Course content is intended to help leaders, managers, and supervisors deal with a dramatically changing workplace that is affected by technology changes, a more competitive and global market place, corporate restructuring, and the changing nature of work and the workforce. Topics include: Leadership Principles, Leadership Relative to the Function of Management; Decision Making Process; Building and Effect Organizational Culture; Human Resource Management; and Delegating Management, Organization, and Control.

Quarter Course Equivalencies: New

DENA 1030 - PREVENTIVE DENTISTRY

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): DENA 1080, DENA 1340

Provides students with theory and clinical experience in the area of preventive and public health dentistry. Topics include: etiology of dental disease; patient education techniques; plaque control techniques; types and use of fluoride; diet analysis for caries control; and dietary considerations for the dental patient.

Quarter Course Equivalency: DEN 1030 or DEN 103

DENA 1050 - MICROBIOLOGY AND INFECTION CONTROL

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 1

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces fundamental microbiology and infection control techniques. Topics include: classification, structure, and behavior of pathogenic microbes; mode of disease transmission; body's defense and immunity; infectious diseases; and infection control procedures in accordance with CDC recommendations and OSHA guidelines.

Quarter Course Equivalency: DEN 1050 or DEN 105

DENA 1070 - ORAL PATHOLOGY AND THERAPEUTIC

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): (ALHS 1011 or DENA 1010) and DENA 1080

Co-requisite(s): None

Focuses on the diseases affecting the oral cavity and pharmacology as it relates to dentistry. Topics include: identification and disease process; signs/symptoms of oral diseases and systemic diseases with oral manifestations; developmental abnormalities of oral tissues; basic principle of pharmacology; drugs prescribed by the dental profession; drugs that may contraindicate treatment; and applied pharmacology (regulations, dosage, and applications).

Quarter Course Equivalency: DEN 1070 or DEN 107

DENA 1080 - DENTAL ANATOMY

Credit Hours: 5

Weekly Contact Hours: Lecture - 5 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Focuses on normal head and neck anatomy and the development and functions of oral anatomy. Topics include: dental anatomy; oral histology; oral embryology; osteology of the skull; muscles of mastication and facial expression; temporal mandibular joint; blood lymphatic nerve supply of the head; and salivary glands and related structures.

Quarter Course Equivalency: DEN 1020/102 and DEN 1060/106

DENA 1090 - DENTAL ASSISTING NATIONAL BOARD EXAMINATION PREPARATION

Credit Hours: 1

Weekly Contact Hours: Lecture - 1 Lab - 0

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Reviews information concerning all didactic areas tested by the Dental Assisting National Board (DANB). Topics

include: collecting and recording clinical data; dental radiography; chairside dental procedures; prevention of disease transmission; patient education and oral health management; office management procedures; and test taking skills.

Quarter Course Equivalency: DEN 1090 or DEN 109

DENA 1340 - DENTAL ASSISTING I: GENERAL CHAIRSIDE

Credit Hours: 6

Weekly Contact Hours: Lecture - 3 Lab - 6

Pre-requisite(s): None

Co-requisite(s): DENA 1050, DENA 1080

Introduces student to ethics and jurisprudence for the dental assistant and to chairside assisting with diagnostic and operative procedures. Topics include: ethics and jurisprudence in the dental office; four-handed dentistry techniques; clinical data collection techniques; introduction to operative dentistry; and dental material basics.

Quarter Course Equivalency: DEN 1340/134 and DEN 1380/138

DENA 1350 - DENTAL ASSISTING II: DENTAL SPECIALITIES AND EFDA SKILLS

Credit Hours: 7

Weekly Contact Hours: Lecture - 4 Lab - 6

Pre-requisite(s): DENA 1340

Co-requisite(s): None

Focuses on chairside assisting with dental specialty procedures. Topics include: prosthodontic procedures (fixed and removable); orthodontics; pediatric dentistry; periodontic procedures; oral and maxillofacial surgery procedures; endodontics procedures; management of dental office emergencies; medically compromised patients and expanded functions approved by law for performance by dental assistants in the state of Georgia. Student will pass a comprehensive examination and successfully perform all required clinical skills to receive EFDA certification.

Quarter Course Equivalency: DEN 1350/135 and DEN 1360/136 and DEN 1370/137

DENA 1390 - DENTAL RADIOLOGY

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): DENA 1080

Co-requisite(s): None

After completion of the course the student will be able to provide radiation safety for patient and self, expose x-rays, process x-rays, and prepare dental films for the dental office. Topics include: fundamentals of radiology and radiation safety; radiographic anatomy and interpretation; intraoral and extraoral radiographic techniques; and quality assurance techniques.

Quarter Course Equivalency: DEN 1390 or DEN 139

DENA 1400 - DENTAL PRACTICE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): COMP 1000, DENA 1340

Co-requisite(s): None

Emphasizes procedures for office management in dental practices. Topics include: oral and written communication; records management; appointment control; dental insurance form preparation; accounting procedures; supply and inventory control; employability skills and basic computer skills. A computer lab provides basic skills in computer use and utilization of these skills to perform office procedures on a microcomputer.

Quarter Course Equivalency: DEN 1400/140 and DEN 1380/138

DENA 1460 - DENTAL PRACTICUM I

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): DENA 1050,

Co-requisite(s): DENA 1350, DENA 1390, DENA 1340

Practicum focuses on infection control in the dental office and assisting with diagnostic and simple operative procedures. Topics include: infection control procedures; clinical diagnostic procedures; and general dentistry procedures.

Quarter Course Equivalency: DEN 1460 or DEN 146

DENA 1470 - DENTAL PRACTICUM II

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): None

Co-requisite(s): DENA 1460

Practicum focuses on advanced general dentistry procedures and chairside in dental specialties with special emphasis on nonsurgical specialties. Topics include: advanced general dentistry and specialties.

Quarter Course Equivalency: DEN 1470 or DEN 147

DENA 1480 - DENTAL PRACTICUM III

Credit Hours: 5

Weekly Contact Hours: Lecture - 0 Lab - 15

Pre-requisite(s): None

Co-requisite(s): DENA 1460, DENA 1470

Practicum continues to focus on assisting chairside with advanced general dentistry procedures with emphasis on dental office management, preventive dentistry, and expanded functions. Topics include: advanced general dentistry procedures; preventive dentistry; dental office management; expanded functions; chairside in specialties; and management of dental office emergencies.

Quarter Course Equivalency: DEN 1480 or DEN 148

DFTG 1015 - PRACTICAL GEOMETRY AND TRIGONOMETRY FOR DRAFTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces and develops basic geometric and trigonometric concepts. Course content will emphasize geometric concepts and trigonometric concepts as they pertain to drafting/CAD.

Quarter Course Equivalency: MAT 1015 or MAT 104

DFTG 1101 - CAD FUNDAMENTALS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Provisional Admission

Co-requisite(s): COMP 1000

Establishes safety practices as they relate to a drafting environment. Introduces basic CAD functions while presenting essential principles and practices for line relationships, scale, and geometric construction.

Quarter Course Equivalency: (DDF 100 and DDF 107) or (DDF 101 and DDF 107)

DFTG 1103 - MULTIVIEW/BASIC DIMENSIONING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1101

Technical Drawing I provides multiview and pictorial sketching, orthographic drawing and fundamental dimensioning methods necessary to develop 2D and 3D views that completely describe machine parts for manufacture using intermediate CAD software techniques.

Quarter Course Equivalency: DDF 102 and DDF 111

DFTG 1105 - 3D MECHANICAL MODELING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1103

In the 3D Mechanical Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for mechanical drafting. The student will develop the skills necessary to create 3D models and presentation/working drawings.

Quarter Course Equivalency: DDF 112 (Inventor)

DFTG 1107 - ADVANCED DIMENSION/SECTIONAL VIEW

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): DFTG 1103

Co-requisite(s): DFTG 1105 or DFTG 1127
Technical Drawing II continues dimensioning skill development and introduces tools for precision measurement and sectional views.

Quarter Course Equivalency: DDF 103

DFTG 1109 - AUXILIARY VIEWS/SURFACE DEVELOPMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1105

Introduces techniques necessary for auxiliary view drawings, surface development, and developing sheet metal parts.

Topics include: primary auxiliary views, secondary auxiliary views, surface development, and developing sheet metal parts.

Quarter Course Equivalency: DDF 105 and DDF 108

DFTG 1111 - FASTENERS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): DFTG 1105

Co-requisite(s): None

This course covers the basics of identifying fastening techniques, interpreting technical data, and create working drawings. Topics include utilization of technical data, identifying thread types, graphic representation of threaded fasteners, utilization of other fastening techniques, welding symbol identification, and welding symbol usage in working drawings.

Quarter Course Equivalency: DDF 106

DFTG 1113 - TECHNICAL DRAWING V

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1111

Technical Drawing V provides knowledge and skills necessary to create working drawings for the manufacture of machine parts. Topics include: detail drawings, orthographic assembly drawings, pictorial assembly drawings, and utilization of technical reference source.

Quarter Course Equivalency: DDF 109

DFTG 1125 - ASSEMBLY DRAWING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1103

Introduces architectural fundamental principles and practices associated with architectural styles and drawing. Fundamentals residential and commercial practices will be covered. Topics include: specifications and materials;

architectural styles, construction drawing practices and procedures, dimensioning and scales.

Quarter Course Equivalency: DDS 200 and DDS 205

DFTG 1127 - ARCHITECTURAL 3D MODELING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1103

In the Architectural 3D Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for Architectural drafting. The student will develop the skills necessary to create 3D models and presentation/constructions drawings.

Quarter Course Equivalency: DDF 112 (Revit)

DFTG 1129 - RESIDENTIAL DRAWING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): DFTG 1125

Introduces the essential skills necessary for assessing the expected materials, labor requirements and costs for given structures or products also students will be introduced to architectural drawing skills necessary to produce a basic set of construction drawings given floor plan information. Topics include: material take-offs; footing and foundation; floor plans; exterior elevations; site plans; and construction drawing techniques/practices.

Quarter Course Equivalency: DDS 204 and DDS 205

DFTG 1131 - RESIDENTIAL DRAWING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): DFTG 1129

Co-requisite(s): None

Continues in-depth architectural drawing practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include: material take-offs; footing and foundation; floor plans; exterior elevations; site plans; and construction drawing techniques/practices.

Quarter Course Equivalency: DDS 207 and DDS 208

DFTG 1133 - COMMERCIAL DRAWING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): DFTG 1125

Co-requisite(s): None

Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include: structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings.

Quarter Course Equivalency: DDS 209 and DDS 210

DFTG 2010 - ENGINEERING GRAPHICS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

Covers the basics of computer terminology, input and output devices, file formatting, file management, for CAD software. Introduces students to the fundamentals of geometric construction, scale reading line relationship and basic history of the drafting concepts. Student will also be introduced to basic and intermediate CAD commands and procedures, and drafting concepts and principals.

Quarter Course Equivalency: DDF 191

DFTG 2020 - VISUALIZATION AND GRAPHICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): None

This course is an introduction to engineering graphics and component visualization. Sketching, line drawing, computer assisted drafting solid modeling including parametric modeling are practiced. Development of working drawings and requirements for drawing in a manufacturing and rapid pro-type environment are emphasized.

Quarter Course Equivalency: New

DFTG 2030 - ADVANCED 3D MODELING ARCHITECTURAL

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): DFTG 1127

Co-requisite(s): None

In this course students become acquainted with concepts of the software related to Presentations for Architectural Renderings and Architectural Animations. Students will demonstrate skills in texture applications, camera angles for presentations, lighting and shadow techniques for architectural renderings, and animation techniques for architectural presentations.

Quarter Course Equivalency: New

DFTG 2040 - ADVANCED 3D MODELING MECHANICAL

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): DFTG 1105

Co-requisite(s): None

In this course the student becomes acquainted with concepts of the software related to Sheet Metal modeling for mechanical drafting, multibody parts assemblies, and basic animation techniques for mechanical assembly presentations.

Quarter Course Equivalency: New

DFTG 2110 - BLUEPRINT READING FOR TECHNICAL DRAWING I

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the fundamental principles and practices associated with interpreting technical drawings. Topics include: interpretation of blueprints and sketching.

Quarter Course Equivalency: New

DFTG 2120 - PRINT READING FOR ARCHITECTURE

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course emphasizes skills in reading, producing and interpreting construction drawings. Topics include reading and measuring plans, identifying and understanding lines, symbols, dimensions, materials, schedules, and specifications.

Quarter Course Equivalency: New

DFTG 2130 - MANUAL DRAFTING FUNDAMENTALS

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course emphasizes the essential techniques of basic manual drafting. It introduces drafting tools and equipment, scale and measurement, line relationships and lettering, and geometric construction concepts.

Quarter Course Equivalency: DDF 101

DFTG 2210 - BLUEPRINT READING FOR TECHNICAL DRAWING II

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): DFTG 2110

Co-requisite(s): None

This course continues the development of blueprint reading as applied to technical drawing. Topics include threads (inch and metric), auxiliary views, geometric tolerancing, and weldments.

Quarter Course Equivalency: New

DFTG 2300 - DRAFTING TECHNOLOGY PRACTICUM/INTERNSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

Quarter Course Equivalency: New

DFTG 2400 - DRAFTING TECHNOLOGY PRACTICUM/INTERNSHIP

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): None

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

Quarter Course Equivalency: New

DFTG 2500 - DRAFTING TECHNOLOGY EXIT REVIEW

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

Emphasis is placed on students' production of portfolio-quality pieces. Focuses on the preparation for entry into the job market.

Quarter Course Equivalency: New

DFTG 2600 - DRAFTING TECHNOLOGY PRACTICUM/INTERNSHIP

Credit Hours: 6

Weekly Contact Hours: Lecture - 0 Lab - 18

Pre-requisite(s): None

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

Quarter Course Equivalency: New

DHYG 1000 - TOOTH ANATOMY AND ROOT MORPHOLOGY

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides the student with a thorough knowledge of external and internal morphological characteristics of human primary and secondary dentition. Also introduces the student to various tooth identification systems, classifications of occlusion and dental anomalies. Topics include: oral cavity anatomy, dental terminology, external and internal tooth anatomy, tooth nomenclature and numbering systems, individual tooth and root morphology, occlusion and dental anomalies.

Quarter Course Equivalency: New

DHYG 1010 - ORAL EMBRYOLOGY AND HISTOLOGY

Credit Hours: 1

Weekly Contact Hours: Lecture - 1 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Focuses on the study of cells and tissues of the human body with emphasis on those tissues that compose the head, neck, and oral cavity. Topics include: cellular structure and organelles; histology of epithelium; histology of connective tissue; histology of muscle tissue; histology of nerve tissue; histology of oral mucosa and orofacial structures; embryological development of the head and neck; tooth development; and development of tooth supporting structures.

Quarter Course Equivalency: New

DHYG 1020 - HEAD AND NECK ANATOMY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Focuses on anatomy of the head and neck. Emphasis is placed on those structures directly affected by the practice of dentistry. Topics include: terminology; anatomic landmarks; osteology of the skull; temporomandibular joint; muscles of mastication; muscles of facial expression; nervous system; blood supply of the head and neck; lymphatic system and immunology; endocrine and exocrine glands of the head and neck; nasal and paranasal sinuses; fascial spaces and the spread of dental infections; and anatomy concerning local anesthesia.

Quarter Course Equivalency: DHYG 1020

DHYG 1030 - DENTAL MATERIAL

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Focuses on the nature, qualities, composition and manipulation of materials used in dentistry. The primary goal of this course is to enhance the student's ability to make clinical judgments regarding the use and care of dental materials based on how these materials react in the oral environment. Topics include: dental materials standards, dental materials properties, impression materials, gypsum products, mouthguards and whitening systems, dental bases, liners and cements, temporary restorations, classifications for restorative dentistry, direct restorative materials, indirect restorative materials, polishing procedures for dental restorations, removable dental prostheses, sealants, and implants.

Quarter Course Equivalency: DHYG 2030

DHYG 1040 - PRECLINICAL DENTAL HYGIENE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): DHYG 1050

Provides fundamental skills to be utilized in the delivery of optimum patient care by the dental hygienist. Topics include: patient assessment, instrumentation, charting, occlusion, caries, emergencies, ethics and professionalism, asepsis, and patient and clinician positioning.

Quarter Course Equivalency: DHYG 1000

DHYG 1050 - PRECLINICAL DENTAL HYGIENE LAB

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): DHYG 1040

Provides fundamental skills to be utilized in the delivery of optimum patient care by the dental hygienist. Topics include: asepsis, ethics and professionalism, emergencies, patient assessment, patient and clinician positioning, instrumentation, charting, occlusion and caries.

Quarter Course Equivalency: DHYG 1010

DHYG 1070 - RADIOLOGY LECTURE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): None

Co-requisite(s): DHYG 1020

Emphasizes the application of radiology principles in the study of the teeth and their surrounding structures. Topics include: radiation physics principles; radiation biology; radiation safety; radiographic quality assurance; imaging theory; radiographic interpretation; radiographic need; legal issues of dental radiography; and digital radiography techniques and principles.

Quarter Course Equivalency: DHYG 1070

DHYG 1090 - RADIOLOGY LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 2

Pre-requisite(s): Program Admission, DHYG 1020

Co-requisite(s): None

Emphasizes the application of radiology principles in the study of the teeth and their surrounding structures. Topics include: radiation safety, radiographic quality assurance, imaging theory, radiographic interpretation, radiographic need, and digital radiography principles and techniques.

Quarter Course Equivalency: DHYG 1080

DHYG 1110 - CLINICAL DENTAL HYGIENE I LECTURE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): DHYG 1040

Co-requisite(s): DHYG 1111

Continues the development of knowledge in patient care. Topics include: prevention, instrumentation, patient management, dental appliances, and treatment planning.

Quarter Course Equivalency: DHYG 1100

DHYG 1111 - CLINICAL DENTAL HYGIENE I LAB

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): DHYG 1050

Co-requisite(s): DHYG 1110

Continues the development of knowledge in patient care. Topics include: prevention, instrumentation, patient management, dental appliances, treatment planning, and applied techniques.

Quarter Course Equivalency: DHYG 1110

DHYG 1206 - PHARMACOLOGY AND PAIN CONTROL

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces principles of basic pharmacology as they pertain to the practice of dentistry and dental hygiene. Emphasizes actions and reactions of medications commonly used in the dental office or taken by dental patients. Topics include: pharmaceutical referencing; legal and ethical considerations; drug effects; contraindications; drug related emergencies; dental related anesthesia; and pain control.

Quarter Course Equivalency: DHYG 1030

DHYG 2010 - CLINICAL DENTAL HYGIENE II LECTURE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): DHYG 1070, DHYG 1110

Co-requisite(s): DHYG 2020

Continues the development of student knowledge in treating patients and preventing oral disease. Topics include: instrument sharpening; patient assessment; antimicrobial use; pulp vitality testing; treatment of hypersensitivity; whitening; implant care; tobacco cessation; pit and fissure sealants, scaling, debridement and root planing; ultrasonics and air polishing and dietary analysis.

Quarter Course Equivalency: DHYG 1200

DHYG 2020 - CLINICAL DENTAL HYGIENE II LAB

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): DHYG 1070, DHYG 1090, DHYG 1111

Co-requisite(s): DHYG 2010

Continues the development of student knowledge in treating patients and preventing oral disease. Topics include: instrument sharpening; patient assessment; antimicrobial use; pulp vitality testing; treatment of hypersensitivity; whitening; implant care; tobacco cessation; pit and fissure sealants; scaling, debridement and root planing; ultrasonics and air polishing; dietary analysis, and applied techniques.

Quarter Course Equivalency: DHYG 1210

DHYG 2050 - GENERAL ORAL PATHOLOGY/ PATHOPHYSIOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): DHYG 1010, DHYG 1020

Co-requisite(s): None

Introduces pathology as a specialty of dentistry and includes the etiology, pathogenesis and recognition of various pathological conditions. Emphasis is placed on oral and paraoral pathology and systemic conditions affecting the head and neck. Topics include: terminology and biopsy procedures; inflammation, repair, and regeneration; soft tissue and dental anomalies; pathogenesis of caries and pulpal pathology; cysts and tumors of the head and neck; systemic conditions that affect the oral structures; infectious diseases; diseases of the salivary glands; diseases of bone; blood dyscrasias; vesiculo-erosive and autoimmune diseases; and genetic diseases and syndromes of the head and neck.

Quarter Course Equivalency: DHYG 1120

DHYG 2070 - COMMUNITY DENTAL HEALTH

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): DHYG 1110

Co-requisite(s): None

Provides students with a broad understanding of the healthcare system and an objective view of the significant social, political, psychological and economic forces directing the system. Prepares students to promote oral health and prevent oral disease in a community, by meeting specific dental health needs of community groups. Topics include: epidemiology; community dental care assessment; community dental care provision; preventive counseling for groups; group oral health education; terminology; dental care systems; biostatistics; and concepts of dental research.

Quarter Course Equivalency: DHYG 2020

DHYG 2080 - CLINICAL DENTAL HYGIENE III

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): DHYG 2010

Co-requisite(s): DHYG 2090

Continues the development of student knowledge necessary for treatment and prevention of oral diseases. Topics include: treatment of patients with special needs.

Quarter Course Equivalency: DHYG 2000

DHYG 2090 - CLINICAL DENTAL HYGIENE III LAB

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): DHYG 2020

Co-requisite(s): DHYG 2080

Continues the development of student skills necessary for treatment and prevention of oral disease. Topics include: special needs patients and applied techniques.

Quarter Course Equivalency: DHYG 2010

DHYG 2130 - CLINICAL DENTAL HYGIENE IV LECTURE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): DHYG 2080

Co-requisite(s): DHYG 2140

Focuses on the dental hygiene field and presents the fundamental concepts and principles necessary for successful participation in the dental profession. Topics include: employability skills; State of Georgia Dental Practice Act; office management; expanded duties; legal aspects; ethics; dental hygiene practice settings; and dentistry and dental hygiene regulation.

Quarter Course Equivalency: DHYG 2100

DHYG 2140 - CLINICAL DENTAL HYGIENE IV LAB

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): DHYG 2090

Co-requisite(s): DHYG 2130

Continues the development of student skills necessary for treatment and prevention of oral disease. Topics include: applied techniques and time management.

Quarter Course Equivalency: DHYG 2110

DHYG 2200 - PERIODONTOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): DHYG 1010

Co-requisite(s): None

Provides fundamental information on periodontal anatomy, pathogenesis of the periodontal diseases, and an introduction to modern rational periodontal therapy, including preventive, non-surgical, and surgical methods. Topics include: tissues of the periodontium; periodontal pathology; periodontal diseases; assessment and treatment planning; periodontal disease therapy; and periodontal emergencies.

Quarter Course Equivalency: DHYG 1220

DIMT 1100 - HISTORY OF MASS COMMUNICATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course will study the processes, elements, uses, and impacts of mass media, including history development, operation, and cultural effects of books, newspapers, magazines, motion pictures, radio, television, sound recordings, and computer media.

Quarter Course Equivalency: New

DIMT 1120 - PRE-PRODUCTION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3.5 Lab - 1

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

An introduction of TV and digital video pre-production planning and the mastering of the essential skill sets necessary before production begins.

Quarter Course Equivalency: New

DIMT 1130 - INTRODUCTION TO VIDEOGRAPHY

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduction to electronic field and remote productions, including single and multiple camera operations. Basic field camera operations, tape to tape editing, editing techniques, single/multiple camera continuity, and scripting are all addressed.

Quarter Course Equivalency: New

DIMT 2100 - VIDEOGRAPHY

Credit Hours: 4

Weekly Contact Hours: Lecture - 2.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): DIMT 1120 or 1130

Introduction to electronic field and remote productions, including single camera operations. Field production and writing in various formats for broadcast.

Quarter Course Equivalency: New

DIMT 2150 - LIGHTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

This course focuses on lighting for interior spaces and studio applications with emphasis on special lighting conditions such as reduced, low level key lighting and studio chroma keys utilizing Green and/or Blue Screen technology.

Quarter Course Equivalency: New

DIMT 2160 - BROADCAST NEWS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): DMPT 2525

Co-requisite(s): DIMT 1130

This course covers electronic news gathering field production, special lighting situations, and challenges for single and multi-camera video documentation.

Quarter Course Equivalency: New

DIMT 2170 - INTRODUCTION TO DIRECTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): DIMT 1120 or 1130

Introduction to directing in single camera field production and multiple camera studio and field settings. Students will direct simulated live television production and film style single camera productions.

Quarter Course Equivalency: New

DIMT 2800 – DIGITAL MEDIA EXIT REVIEW

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): DIMT 2100

Co-requisite(s): None

Introduction to the media job search and resume building for the media profession.

DMGT 1030 - MANAGEMENT OF FOOD SERVICE OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course is designed to cover all aspects of foodservice operations management. Topics include: organizational charts, forecasting food amounts, purchasing, recommended cooking procedures and equipment needs, and investigating safety.

Quarter Course Equivalency: DMA 1030

DMGT 1050 - HUMAN RESOURCE MANAGEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

A study of human resource and management issues, responsibilities and techniques as related to the food service industry. Topics include: management responsibilities,

personnel needs, state and federal laws, scheduling, diversity, and professionalism.

Quarter Course Equivalency: DMA 1050

DMGT 1070 - NUTRITION & MANAGEMENT

Credit Hours: 5

Weekly Contact Hours: Lecture - 4 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course is designed for students enrolled in the Certified Dietary Manager program. This course provides students the knowledge of nutritional needs of individuals, including at risk populations. Students learn medical nutrition therapy concepts and documentation procedures. Topics include basic nutrition concepts, nutrition throughout the lifespan, medical nutrition therapy, nutrition screening and assessments, nutrition documentation in the healthcare setting, diet modifications, menu planning, and client education.

Quarter Course Equivalency: DMA 1070

DMPT 1000 - INTRODUCTION TO DESIGN AND MEDIA PRODUCTION

Credit Hours: 6

Weekly Contact Hours: Lecture - 3 Lab - 6

Pre-requisite(s): None

Co-requisite(s): None

Covers the basics of computer terminology, operating systems, and input and output devices, file formatting, file management, and overview of software. Introduces students to the fundamentals of design concepts, including design, composition and layout, color theory and typography

Quarter Course Equivalency: VCM 121 or VCM 127 or VCM 133 or PGT 101 or DMT 102 or DMP 103 or CAM 103 or CAM 105 or MCM 201

DMPT 1005 - VECTOR GRAPHICS

Credit Hours: 5

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): None

Co-requisite(s): None

This course is an introduction to the creation of vector imagery. Students will learn to draw illustrations, transform objects, work with layers, patterns, brushes, and filters, use effects and create graphics for the various applications. The focus will be on learning the essential tools, basic operation and commands used in the creation of vector graphics used in different media fields.

Quarter Course Equivalency: VCM 201 or PGT 103 or PGT 115 or CAM 101 or DMP 103 or MCM 202

DMPT 1010 - RASTER IMAGING

Credit Hours: 5

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): None

Co-requisite(s): None

In the Raster Imaging course, the student becomes acquainted with the concepts and software related raster image manipulation. The student is introduced to the workspace and tools used in an image editing software and will learn basic image editing techniques.

Quarter Course Equivalency: VCM 136 or PGT 107 or PGT 128 or CAM 110 or MCM 202

DMPT 2100 - IDENTITY DESIGN

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): None

This course focuses on the design challenges associated with the development of symbol systems, logos, environmental graphics and information graphics. Students will use their knowledge of vector and raster applications for further study into the use of typographic treatment and graphic images.

Quarter Course Equivalency: New

DMPT 2105 - PAGE LAYOUT

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course is an introduction to graphic design production using page layout software. Students will be introduced to the essential terminology, tools, and stages of workflow in the graphic design process.

Quarter Course Equivalency: PGT 102 or VCM 130 or CAM 125

DMPT 2110 - PUBLICATION DESIGN

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Using skills learned in the page layout course, students will design projects relating to the challenges associated with multiple page formats.

Quarter Course Equivalency: VCM 130 or PGT 103 or CAM 126 or MCM 203

DMPT 2115 - ADVERTISING AND PROMOTIONAL DESIGN

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Using skills learned in the page layout course, students will design projects for advertising and promotion of products and services.

Quarter Course Equivalency: VCM 204 or MCM 204 or VCM 207

DMPT 2120 - PREPRESS AND OUTPUT

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

This course is an in-depth introduction to the graphic prepress production process. Through hands-on projects, the student will experience the challenges involved in successful graphic prepress production.

Quarter Course Equivalency: VCM 213 or PGT 109 or PGT 115 or MCM 203 or VCM 210

DMPT 2200 - INTRODUCTION TO THE PRINTING INDUSTRY

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Introduces beginning student to overview and fundamentals of the printing industry. Topics include: safety, industry overview, printers math and measurement, overview of materials and supplies, printing operations and bindery and finishing.

Quarter Course Equivalency: PGT 101

DMPT 2205 - BASIC PRINTING OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): None

Introduces student to basics of printing operations including safety, image carriers, materials and supplies. Student will begin to use press, bindery and finishing equipment.

Quarter Course Equivalency: PGT 111 or PGT 120

DMPT 2210 - INTERMEDIATE PRINTING AND FINISHING OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): DMPT 2200

Co-requisite(s): DMPT 2205

Emphasizes the intermediate printing and finishing operations including safety, printing operations, troubleshooting and quality control, along with inspection and maintenance procedures.

Quarter Course Equivalency: PGT 112 or PGT 122

DMPT 2215 - ADVANCED PRINTING AND POST PRODUCTION OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Emphasizes advanced printing and post-production operations including safety, multi-pass production, production workflow and post-production.

Quarter Course Equivalency: PGT 113 and PGT 114 and PGT 124

DMPT 2900 - PRACTICUM/INTERNSHIP I

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

Quarter Course Equivalency: PGT 110 or DMP 215 or DMP 2991 or VCM 216 or VCM 236 or ENT 215

DMPT 2905 - PRACTICUM/INTERNSHIP II

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

Quarter Course Equivalency: PGT 110

DMPT 2910 - PRACTICUM/INTERNSHIP III

Credit Hours: 5

Weekly Contact Hours: Lecture - 0 Lab - 15

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

Quarter Course Equivalency: PGT 110

DMPT 2920 - PRACTICUM/INTERNSHIP IV

Credit Hours: 6

Weekly Contact Hours: Lecture - 0 Lab - 18

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control

Quarter Course Equivalency: New

DMPT 2930 - EXIT REVIEW

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): Program Instructor Approval

Co-requisite(s): None

Emphasis is placed on student's production of portfolio-quality pieces. Focuses on the preparation for entry into the job market.

Quarter Course Equivalency: VCM 240 or ENT 213 or CAM 150 or PGT 109 or DMP 216 or DMP 218

ECCE 1101 - INTRODUCTION TO EARLY CHILDHOOD CARE AND EDUCATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces concepts relating the responsibilities and procedures involved in a variety of early childhood care situations. Topics include historical perspectives; professionalism; guidance; developmentally appropriate practices; learning environment (including all children); cultural diversity; and licensing, accreditation, and credentialing.

Quarter Course Equivalency: ECE 1010 or ECE 101

ECCE 1103 - CHILD GROWTH AND DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the student to the physical, social, emotional, and cognitive development of the young child (prenatal through 12 years of age). The course provides for competency development in observing, recording, and interpreting growth and development stages in the young child; advancing physical and intellectual competence; supporting social and emotional development; and examining relationships between child development and positive guidance. Topics include developmental characteristics, prenatal through age 12, developmental guidance applications, observing and recording techniques, ages and stages of development, and introduction to children with special needs.

Quarter Course Equivalency: ECE 1030 or ECE 103 or ECE 2030 or ECE 203

ECCE 1105 - HEALTH, SAFETY AND NUTRITION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the theory, practices, and requirements for establishing and maintaining a safe, healthy learning

environment. Topics include CPR and first aid, health issues, safety issues, child abuse and neglect, and nutritional needs of children.

Quarter Course Equivalency: ECE 1050 or ECE 105

ECCE 1112 - CURRICULUM AND ASSESSMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): ECCE 1103

Provides student with an understanding of developmentally effective approaches to teaching, learning, observing, documenting and assessment strategies that promote positive development for young children. The course will enable the student to establish a learning environment appropriate for young children and to identify the goals, benefits, and uses of assessment in the development of curriculum for young children. Topics include observing, documenting, and assessing; learning environments; development of curriculum plans and materials; curriculum approaches; and instructional media.

Quarter Course Equivalency: ECE 1012 or ECE 112

ECCE 1113 - CREATIVE ACTIVITIES FOR CHILD

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the concepts related to creativity in art, music, movement and creative drama, and facilitating children's creative expression across the curriculum. Topics include concepts of creativity and expression; theories of young children's creative development; facilitation of children's creative expression, media, methods and materials across the curriculum; appreciation of children's art processes and products; appreciation of children's creativity in music, movement and dance; appreciation of children's creative expression in play and creative drama; and art and music appreciation.

Quarter Course Equivalency: ECE 1013/113 and ECE 1014/114

ECCE 1121 - EARLY CHILDHOOD CARE AND EDUCATION PRACTICUM

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): ECCE 1105

Provides the student with the opportunity to gain a supervised experience in a practicum placement site allowing demonstration of techniques obtained from course work. Practicum topics include promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young

children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management.

Quarter Course Equivalency: ECE 1021 or ECE 1022

ECCE 1125 - PROFESSIONALISM-CDA CERTIFICATION PREPARATION

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides training in professionalism through Child Development Associate Credentialing Certificate preparation in the following areas: applying for the Child Development Associate Credential through Direct Assessment, professional resource file development, and strategies to establish positive and productive relationships with families.

Quarter Course Equivalency: ECE 1025 and ECE 1026

ECCE 2115 - LANGUAGE AND LITERACY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): ECCE 1103

Develops knowledge, skills, and abilities in supporting young children's literacy acquisition and development, birth through age twelve. Topics include developmental continuum of reading and writing, literacy acquisition birth to five years of age, literacy acquisition in kindergarten, literacy acquisition in early grades, and literacy acquisition in children who are culturally and linguistically diverse.

Quarter Course Equivalency: ECE 2115 or ECE 115

ECCE 2116 - MATH AND SCIENCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): ECCE 1103

Presents the process of introducing math and science concepts to young children. Includes planning and implementation of developmentally appropriate activities and development of math and science materials, media and methods. Topics include inquiry approach to learning; cognitive stages and developmental processes in developing math and science concepts with children birth to five; cognitive stages and developmental processes in developing math and science concepts with children in kindergarten and primary grades; planning math and science activities; and development of math and science materials, media and methods.

Quarter Course Equivalency: ECE 2116 or ECE 116

ECCE 2201 - EXCEPTIONALITIES

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ECCE 1103

Co-requisite(s): None

Provides for the development of knowledge and skills that will enable the student to understand individuals with special needs and appropriately guide their development. Special emphasis is placed on acquainting the student with programs and community resources that serve families with children with special needs. Topics include inclusion/least restrictive environment (LRE), physical and motor impairments, gifted/talented, intellectual and cognitive disabilities, emotional and behavioral disorders, communication disorders in speech and language, autism spectrum disorders, visual impairments, deaf and hard of hearing, health impairments, multiple disabilities, and community resources.

Quarter Course Equivalency: ECE 2010 or ECE 201 or ECE 2260 or ECE 206

ECCE 2202 - SOCIAL ISSUES AND FAMILY INVOLVEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Enables the student to value the complex characteristics of children's families and communities and to develop culturally responsive practices which will support family partnerships. Students use their understanding to build reciprocal relationships which promote children's development and learning. Students are introduced to local programs and agencies that offer services to children and families within the community. Topics include professional responsibilities, family/social issues, community resources, family education and support, teacher-family communication, community partnerships, social diversity and anti-bias concerns, successful transitions, and school-family activities.

Quarter Course Equivalency: ECE 2020 or ECE 202

ECCE 2203 - GUIDANCE AND CLASSROOM MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): ECCE 1103

Examines effective guidance practices in group settings based upon the application of theoretical models of child development and of developmentally appropriate practices. Focus will be given to individual, family, and cultural diversity. Topics will include developmentally appropriate child guidance (birth through 12); effective classroom

management, including preventive and interventive techniques; understanding challenging behaviors; and implementing guidance plans.

Quarter Course Equivalency: New

ECCE 2240 - EARLY CHILDHOOD CARE AND EDUCATION INTERNSHIP

Credit Hours: 12

Weekly Contact Hours: Lecture - 0 Lab - 36

Pre-requisite(s): ECCE 1101, ECCE 1103

Co-requisite(s): ECCE 1105

Provides the student with the opportunity to gain a supervised experience in an actual or simulated work site allowing demonstration of techniques obtained from course work. Practicum topics include promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management.

Quarter Course Equivalency: ECE 2240 or ECE 224

ECCE 2310 - PARAPROFESSIONAL METHODS AND MATERIALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): ECCE 1103

Develops the instructional skills to enable the student to work as a paraprofessional in a program for kindergarten through elementary age children. Topics include assessment and curriculum, instructional techniques, and methods for instruction in a learning environment.

Quarter Course Equivalency: ECE 2110 or ECE 211

ECCE 2312 - PARAPROFESSIONAL ROLE AND PRACTICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): ECCE 1103

Develops skills to enable the student to work as a paraprofessional in a program for kindergarten through elementary aged children. Topics include professional qualifications, professional and ethical conduct, professionalism and employment, and paraprofessional roles and responsibilities.

Quarter Course Equivalency: ECE 2120 or ECE 212

ECCE 2320 - PROGRAM ADMINISTRATION AND FACILITY MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides training in planning, implementation, and maintenance of an effective early childhood program and facility. Topics include organization, mission, philosophy, goals of a program; types of programs; laws, rules, regulations, accreditation, and program evaluation; needs assessment; administrative roles and board of directors; anti-bias program development; child development and developmentally appropriate practices; marketing, public and community relations, grouping, enrollment and retention; working with families; professionalism and work ethics; space management; money management; and program, equipment, and supplies management.

Quarter Course Equivalency: ECE 2170 and ECE 2210

ECCE 2322 - PERSONNEL MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides training in early childhood personnel management. Topics include staff records; communication; personnel policies; managing payroll; recruitment, interviewing, selection, hiring, motivating, and firing; staff retention; staff scheduling; staff development; staff supervision; conflict resolution; staff evaluations; ethical responsibilities to employees; and time and stress management.

Quarter Course Equivalency: ECE 2220 or ECE 222

ECCE 2360 - CLASSROOM STRATEGIES FOR EXCEPTIONAL CHILDREN

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ECCE 2201

Co-requisite(s): None

Prepares child care providers and paraprofessionals with knowledge and skills in the areas of working effectively with children with a disability; working with families as partners; examining the laws and regulations; exploring resources, service providers, and agencies that may assist the child and his/her family; examining the adaptations and modifications to facilities and environments; reviewing the referral process; implementing inclusion; modifying instruction to accommodate the child with special needs; and investigating ways to document and chart observations.

Quarter Course Equivalency: ECE 2260 and ECE 2262

ECCE 2362 - EXPLORING YOUR ROLE IN EXCEPTIONAL ENVIRONMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): ECCE 2201

Co-requisite(s): None

Prepares child care providers and paraprofessionals with knowledge and skills for screening and assessing purposes; and explores resources, service providers, and agencies that may assist the child and families in educational or natural settings. Examines adaptations, accommodations, and modifications to environments; reviews the referral process; implements inclusion and modifies instruction to accommodate the child with special needs.

Quarter Course Equivalency: ECE 2264

ECET 1101 - CIRCUIT ANALYSIS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): MATH 1111, ENGT 1000

Emphasizes the knowledge and ability to analyze basic DC circuits and introductory concepts of AC circuits. Topics include: international units, basic electrical laws, series and parallel circuits, network analysis concepts, network theorems concepts, D.C. instruments, grounding techniques, magnetism, inductance/capacitance, transient analysis, and introduction to dependant sources and 2-port parameters.

Laboratory work parallels class work.

Quarter Course Equivalency: EET 101 and EET 102

ECET 1110 – DIGITAL SYSTEMS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): ENGT 1000

Co-requisite(s): None

Study of digital circuit fundamentals with an emphasis on digital electronics and techniques, simplification of logic circuits, sequential and combinational logic circuits, programmable logic devices, flip-flops and registers, binary number system, and arithmetic and logic operations. Laboratory work parallels class work using trainers, DesignWorks, and Altera simulation software and system.

ECET 1191 – COMPUTER PROGRAMMING FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab – 3

Pre-requisite(s): Degree Level Algebra Scores

Co-requisite(s): None

This course emphasizes fundamental concepts of problem solving using a high level source language. Laboratory work is designed to acquaint students with computer facilities, software, and programming fundamentals. Topics include: system fundamentals, concepts of structured programming, arrays, functions, and engineering applications.

ECET 1210 – NETWORKING SYSTEMS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab – 3

Pre-requisite(s): ENGT 1000

Co-requisite(s): None

Provides a foundation in Local Area Networking of computers with an introduction to Wide Area Networking. Emphasis is on Peer-to-Peer Networking.

ECET 2101 – CIRCUIT ANALYSIS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab – 3

Pre-requisite(s): ECET 1101, MATH 1111

Co-requisite(s): None

Continues study of AC circuit analysis, which emphasizes complex networks. Topics include: analysis of complex networks, networks with multiple sources, AC network theorems, resonance, transformers, three-phase systems, filters and bode plots, non-sinusoidal waveforms, and pulse response of RLC circuits. Laboratory work parallels class work.

ECET 2110 – DIGITAL SYSTEMS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab – 3

Pre-requisite(s): ECET 1110

Co-requisite(s): None

Continues the study of digital systems with emphasis on the study of microcomputers with programming applications involving external devices with which the microprocessor/microcontroller must communicate. Topics include: logic families, PLD programming, microcomputer architecture, programming with arithmetic/logic instructions, jump, loop and call operations, I/O programming, timers, interrupts and interfacing techniques. Laboratory work parallels class work to include use of PLD (programmable logic devices) platforms, and microprocessor/microcontroller platforms to reinforce and edify theoretical concepts.

ECET 2120 – ELECTRONIC CIRCUITS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab – 3

Pre-requisite(s): None

Co-requisite(s): None

Introduces the conduction process in semiconductor materials and devices. Topics include semiconductor physics; diodes; basic diode circuits and applications; biasing, stability and graphical analysis of bipolar junction transistors and field effect transistors; introduction to silicon controlled rectifiers; device curve characteristics; and related devices with selected applications. Laboratory work includes circuit construction, use of appropriate instruments, troubleshooting and circuit simulation using P-SPICE.

ECET 2210 – NETWORKING SYSTEMS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab –5

Pre-requisite(s): ECET 1210

Co-requisite(s): None

This course emphasizes the design, implementation, configuration, and monitoring of a client-server network environment. Emphasis is placed on applications to Local Area Networks. An introduction to Network Domains in Wide Area Networks is included.

ECET 2220 – ELECTRONIC CIRCUITS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab –3

Pre-requisite(s): ECET 2120

Co-requisite(s): None

Emphasizes the analysis of BJT and FET amplifiers; analysis and applications of operational amplifiers and other linear digital ICs. Topics include: re transistor model; CB, CE and CC amplifiers; Darlington connection; cascaded systems; CS, CD, CG Amplifiers; High frequency and low frequency response of BJT and FET amplifiers; Power Amplifiers Class A, Class B, Class C Amplifiers; op-amp fundamentals; inverting, non-inverting amplifiers, voltage followers and summing amplifiers; comparators; instrumentation applications; active filters; differentiators and integrators; 555 Timers; A/D and D/A Conversion. Laboratory work parallels class work and includes circuit simulation using P-spice. Laboratory work parallels class work.

ECON 1101 - PRINCIPLES OF ECONOMICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides a description and analysis of economic operations in contemporary society. Emphasis is placed on developing an understanding of economic concepts and policies as they apply to everyday life. Topics include basic economic principles; economic forces and indicators; capital and labor; price, competition, and monopoly; money and banking; government expenditures, federal and local; fluctuations in production, employment, and income; and United States economy in perspective.

Quarter Course Equivalency: ECO 1101 or ECO 191

ECON 2105 - MACROECONOMICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides a description and analysis of macroeconomic principles and policies. Topics include basic economic principles, macroeconomic concepts, equilibrium in the goods and money markets, macroeconomic equilibrium and the impact of fiscal and monetary policies.

Quarter Course Equivalency: ECO 2105 or ECO 193

ECON 2106 - MICROECONOMICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides an analysis of the ways in which consumers and business firms interact in a market economy. Topics include basic economic principles, consumer choice, behavior of profit maximizing firms, modeling of perfect competition, monopoly, oligopoly and monopolistic competition.

Quarter Course Equivalency: ECO 2106 or ECO 192

ELCR 1003 - INTRODUCTION TO ELECTRICAL AND ELECTRONICS THEORY

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab –0

Pre-requisite(s): None

Co-requisite(s): None

This course investigates the fundamental principles of electricity and provides an overview of fundamental electronics theory with an emphasis on practical applications. Topics include: basic electrical/electronics terminology; electromagnetic theory; direct and alternating currents; resistor, transistor, semiconductor and integrated circuit applications; and safety practices and procedures.

ELCR 1005 - SOLDERING TECHNOLOGY

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Develops the ability to solder and desolder connectors, components, and printed circuit boards using industry standards. Topics include: safety practices, soldering, desoldering, anti-static grounding, and surface mount techniques.

Quarter Course Equivalency: ELC 104

ELCR 1300 - MOBILE AUDIO AND VIDEO SYSTEMS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Provides the fundamental concepts for the installation of automotive audio and video systems. Topics include:

charging and electrical systems, automotive wiring harnesses, basic audio systems, advanced audio systems, and mobile video systems.

Quarter Course Equivalency: ELC 130

ELCR 1800 – ELECTRICAL LINEWORKER ORGANIZATION PRINCIPLES

Credit Hours: 3

Weekly Contact Hours: Lecture –3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides a comprehensive summary of lineworker requirements. Topics include physical and mechanical abilities, electrical and workplace safety practices, communications skills, and positive work ethic responsibilities.

ELCR 1820 – ELECTRICAL LINEWORKER WORKPLACE SKILLS

Credit Hours: 2

Weekly Contact Hours: Lecture –2 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will familiarize the student with the importance of working together and team building. Topics include basic tools in the problem solving process, change in the workplace, developing and maintaining a positive image, resume writing, and developing job interview skills.

ELCR 1840 – ELECTRICAL LINEWORKER AUTOMATION SKILLS

Credit Hours: 2

Weekly Contact Hours: Lecture –2 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course familiarizes the student with the identification, proper use, basic electrical fundamentals, and safety and maintenance of lineworker hand and power tools. Students will be prepared to operate hydraulic and pneumatic systems.

ELCR 1860 – ELECTRICAL LINEWORKER OCCUPATIONAL SKILLS

Credit Hours: 5

Weekly Contact Hours: Lecture –2 Lab – 9

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides an introduction to the basic skills necessary for an electrical lineworker. Topics include an understanding of ratios and proportions, blueprint reading, CSL training and testing, lineman simulations, and observation based instruction.

ELCR 2170 - COMPUTER HARDWARE

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides an introduction to the fundamentals of installing, configuring, upgrading, troubleshooting, and repairing microcomputer systems. Topics include installation, configuration, upgrading, diagnosing, troubleshooting, preventive maintenance, basic hardware, printers, and basic networking.

Quarter Course Equivalencies: ELC 217

ELCR 2190 - INTRODUCTION TO ELECTRICAL AND ELECTRONICS THEORY

Credit Hours: 3

Weekly Contact Hours: Lecture – 2 Lab –2

Pre-requisite(s): None

Co-requisite(s): None

Provides an introduction to networking technologies. Cover a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems and implementing the installation of networks. The course reviews cabling, connection schemes, the fundamentals of LAN and Wan technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. Topics include: media and topologies, protocols and standards, network implementation, and network support.

ELCR 2600 - TELECOMMUNICATION AND DATA CABLING

Credit Hours:3

Weekly Contact Hours: Lecture – 2 Lab –2

Pre-requisite(s): ELCR 1010

Co-requisite(s): None

Introduces the basic of cable installation from the initial site survey to splicing cable and making connections. Through laboratory activities, students perform the basic tasks of a cable installer. Topics include: basic standards and practices, cable rating and performance, cable installation and management, testing and troubleshooting, industry standards, pulling cable, and understanding blueprints.

ELCR 2660 - SECURITY SYSTEM INSTALLATION AND TESTING

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

This course is designed to give students a working knowledge of basic security system applications and theory. Students will be able to identify system components and their uses and apply that knowledge to system design. The course utilizes hands-on training in system installation, programming, testing and troubleshooting to assess the preparedness of the student in the security system installation and service industry.

Quarter Course Equivalency: ELC 266

ELCR 2670 - FIRE ALARM INSTALLATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

The course is designed to give students a working knowledge of basic fire alarm system applications and theory. Students will be able to identify classes of alarms and the system components. The course utilizes hands-on training in component identification and installation including, but not limited to fire panels, pull stations, smoke detectors, heat detectors, signaling horns and strobes. Students will also gain knowledge of system programming, testing, troubleshooting, and repair through classroom and hands-on exercises.

Quarter Course Equivalency: ELC 267

ELCR 2680 - ACCESS CONTROL AND CCTV INSTALLATION

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

The Access Control and CCTV Installation course is designed to give students a working knowledge of access control and CCTV systems applications and theory. Students will be able to identify the system components of the respective systems. The access control segment of the course utilizes hands-on training in component identification and installation including, but is not limited to processors, key pads, card swipes, biometric devices, and security devices related to the control of the pathways. The CCTV segment of the course utilizes hands-on training in component identification and installation including, but is not limited to cabling, power supplies, video cameras, VCRs, storage devices, and monitors.

Quarter Course Equivalency: ELC 268

ELTR 1020 - ELECTRICAL SYSTEMS BASICS I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Introduces the theory and application of varying sine wave voltages and current. Topics include: magnetism, AC wave

generation, AC test equipment, inductance, capacitance, and basic transformers.

Quarter Course Equivalency: ELT 119

ELTR 1060 - ELECTRICAL PRINTS, SCHEMATICS, AND SYMBOLS

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces electrical symbols and their use in construction blueprints, electrical schematics, and diagrams. Topics include: electrical symbols, component identification, print reading and scales and measurement.

Quarter Course Equivalency: ELT 106

ELTR 1080 - COMMERCIAL WIRING I

Credit Hours: 5

Weekly Contact Hours: Lecture - 4 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

This course introduces commercial wiring practices and procedures. Topics include industrial safety procedures, the National Electrical Code, and commercial load calculations.

Quarter Course Equivalency: ELT 107 and ELT 108

ELTR 1090 - COMMERCIAL WIRING II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course introduces commercial wiring practices and procedures. Topics include industrial safety procedures, the National Electrical Code, and commercial load calculations.

Quarter Course Equivalency: ELT 108 and ELT 109

ELTR 1110 - ELECTRIC MOTORS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): None

Co-requisite(s): ELTR 1120, ELTR 1180

Introduces the fundamental theories and applications of single-phase motors. Topics include: motor theory/operating principles, motor terminology, motor identification, NEMA standards, motor efficiencies, preventive maintenance, troubleshooting/failure analysis, and NEC requirements.

Quarter Course Equivalency: ELT 111

ELTR 1120 - VARIABLE SPEED/LOW VOLTAGE CONTROLS

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Introduces types of electric motor control, reduced voltage starting, and applications. Emphasis will be placed on motor types, controller types, and applications. Includes information on wye and delta motor connections; part wind, autotransformer; adjustable frequency drives and other applications; and oscilloscopes and their operation. Topics include: types of reduced voltage starting, reduced voltage motor connections, and adjustable frequency drive.

Quarter Course Equivalency: ELT 112

ELTR 1150 - INTERPRETING THE NATIONAL ELECTRICAL CODE

Credit Hours: 5

Weekly Contact Hours: Lecture –5 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course facilitates the reading and interpretation of the National Electrical Code, and is designed for students with some experience in electrical wiring and use of the NEC. Students with an interest in electrical wiring and the NEC will, upon completion of the course, be able to find information in the Code needed to do residential, commercial, farm, and industrial wiring, and to be successful with electrical licensing examinations.

ELTR 1180 - ELECTRICAL CONTROLS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

Introduces line and low voltage switching circuits, manual and automatic controls and devices, and circuits. Emphasis will be placed on switching circuits, manual and automatic controls and devices, line and low voltage switching circuits, and operation, application and ladder diagrams. Topics include: ladder and wire diagrams, switching circuits, manual controls and devices, automatic controls and devices, and application and operation of controllers and controls.

Quarter Course Equivalency: ELT 118

ELTR 1205 - RESIDENTIAL WIRING I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Introduces residential wiring practices and procedures. Topics include: residential circuits, print reading, National Electrical Code, wiring materials, determining the required number and location of lighting/receptacles and small appliance circuits, wiring methods (size and type conductors, box fill calculations and voltage drop), switch control of

luminaries, receptacle installation including bonding, GFCI and AFCI circuits, special purposes outlets - ranges, cook tops, ovens, dryers, water heaters, sump pumps, and sizing OCPDs (circuit breakers and fuses).

Quarter Course Equivalency: ELT 120

ELTR 1210 - RESIDENTIAL WIRING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): None

Co-requisite(s): ELTR 1205

Provides additional instruction on wiring practices in accordance with National Electrical Code. Topics include: hand and power tools, branch circuits/feeders, residential single family load calculations, residential multifamily service calculations and installations, and equipment installations.

Quarter Course Equivalency: ELT 121

ELTR 1220 - INDUSTRIAL PLC'S

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): ELTR 1110, ELTR 1180

Co-requisite(s): None

Introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on pic programming, connections, installations, and start-up procedures. Topics include: PLC hardware and software, PLC functions and terminology, introductory numbering systems, PLC installation and set up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures.

Quarter Course Equivalency: ELT 122

ELTR 1250 - DIAGNOSTIC TROUBLESHOOTING

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): ELTR 1180

Co-requisite(s): None

Introduces diagnostic techniques related to electrical malfunctions. Special attention is given to use of safety precautions during troubleshooting. Topics include: problem diagnosis, advanced schematics, and sequential troubleshooting procedures.

Quarter Course Equivalency: ELT 115

ELTR 1260 - TRANSFORMERS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2.5

Pre-requisite(s): ELTR 1080, ELTR 1090

Co-requisite(s): None

Provides instruction in the theory and operation of specific types of transformers. Emphasis will be placed on National Electrical Code requirements related to the use of transformers. Topics include: transformer theory, types of transformers, National Electrical Code requirements, and safety precautions.

Quarter Course Equivalency: ELT 116

ELTR 1270 - N.E.C. INDUSTRIAL WIRING APPLICATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

Provides instruction in industrial wiring applications of the National Electrical Code. Topics include: rigid/IMC conduit installation, EMT conduit installation, busways installation, cable tray/wireway installation, and equipment installation (600 volts or less).

Quarter Course Equivalency: ELT 117

ELTR 1500 - ELECTRICAL SYSTEMS TECHNOLOGY INTERNSHIP/PRACTICUM

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

This course is designed to give students the opportunity to engage in a lab project or an off-site internship for the purpose of refining the skills necessary for gainful employment. The student is expected to have completed all program requirements to this point, and to be able to demonstrate efficiency in all skills mastered.

Quarter Course Equivalency: New

ELTR 1510 - ELECTRICAL WORKER

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces work hazards present during the construction of manufacturing homes or construction sites. Emphasis is placed on the proper use of electrical tools and equipment and maintenance of these tools on the work site. Topics include hazards of electricity, safe use electrical tools and equipment, and the repair of electrical cords, plugs, lights, and smirches.

Quarter Course Equivalency: New

ELTR 1520 - GROUNDING AND BONDING

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Presents the theory and practical applications for grounding and bonding systems. Emphasis will be placed on the use of the requirements of the National Electrical Code. Topics include: branch circuit grounding, equipment grounding/bonding, service grounding/bonding, and earth connections.

Quarter Course Equivalency: ELT 151

ELTR 1525 - PHOTOVOLTAIC SYSTEMS

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): None

Co-requisite(s): Provides instruction in industrial applications of the National Electrical Code. Topics include: rigid/IMC conduit installation, EMT conduit installation, busways installation, cable tray/wireway installation, and equipment installation (600 volts or less).

This class introduces techniques and method on how to install residential and commercial photovoltaic systems.

Quarter Course Equivalency:

ELTR 1530 - CONDUIT SIZING

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides practice in calculating conduit size. Emphasis is placed on use of the requirement of the National Electrical Code. Topics include: National Electrical Code, conduits types/trade sizes, and percent of fill.

Quarter Course Equivalency: ELT 150

ELTR 1540 - WIRE PULLING AND CODES

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

The purpose of this course is for instruction in the installation of cabling systems. Emphasis will be on the types of cabling technologies that address voice, video, and data communications and the applicable codes.

Quarter Course Equivalency: ELT 126

ELUT 1101 - INTRODUCTION TO THE ELECTRICAL UTILITY INDUSTRY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will provide students with an overview of the electric power utility industry and occupational opportunities. Topics include the introduction and orientation to the electric utility industry, history of the industry,

electric utility regulation and its scope, regulatory agencies and codes, general safety, electrical systems overview, electrical power generation, electrical transmission, electrical distribution, and electric utility career opportunities.

EMPL 1000 - INTERPERSONAL RELATIONS AND PROFESSIONAL DEVELOPMENT

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Emphasizes human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations skills, job acquisition skills and communication, job retention skills, job advancement skills, and professional image skills.

Quarter Course Equivalency: EMP 1000 or EMP 100 or PSY 100

EMSP 1110 - INTRODUCTION TO THE EMT PROFESSION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course serves as the introductory course to the Emergency Medical Services (EMS) profession. It orients the student to the prehospital care environment, issues related to the provision of patient care in both in-hospital and out-of-hospital circumstances. It further provides foundational information upon which subsequent curriculum content is based so that successful completion of this content increases the potential for success in subsequent courses and should allow students to apply the fundamental knowledge, skills, and attitudes gained in order to effectively communicate and function safely, ethically and professionally within the emergency medical services environment. Topics include: Anatomy and Physiology, Medical Terminology, Pathophysiology, CPR for HCP, EMS Systems, Research, Workforce Safety and Wellness, Documentation, EMS System Communication, Therapeutic Communication, Medical/Legal and Ethics, Public Health, Principles of Safely Operating a Ground Ambulance, Incident Management, Multiple Casualty Incidents, Air Medical, Vehicle Extrication, HazMat, MCI due to Terrorism/Disaster, and Life Span Development.

Quarter Course Equivalency: New

EMSP 1120 - EMT ASSESSMENT/AIRWAY MANAGEMENT & PHARMACOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course prepares students for initial scene management and assessment of patients as well as management of the airway. Introduction to pharmacology is also covered. Includes application of scene information and patient assessment findings (scene size up, primary and secondary assessment, patient history, and reassessment) to guide emergency management. Topics include: Scene Size-Up; Primary Assessment; History Taking; Secondary Assessment; Monitoring Devices; Reassessment; Airway Management; Respiration; Artificial Ventilation; Principles of Pharmacology; Medication Administration; and Emergency Medications.

Quarter Course Equivalency: New

EMSP 1130 - MEDICAL EMERGENCIES FOR THE EMT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course integrates pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan of cases involving non-traumatic medical emergencies. Topics include: Medical Overview; Neurology; Abdominal and Gastrointestinal Disorders; Immunology; Infectious Disease; Endocrine Disorders; Psychiatric; Cardiovascular; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Non-Traumatic Musculoskeletal Disorders; Diseases of the Eyes, Ears, Nose, and Throat; and Medical Assessments.

Quarter Course Equivalency: New

EMSP 1140 - SPECIAL PATIENT POPULATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides a fundamental knowledge of growth, development, and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs. Topics include: Obstetrics, Gynecology, Neonatal Care, Pediatrics, Geriatrics, Patients with Special Challenges, and Special Patient Populations - Assessments.

Quarter Course Equivalency: New

EMSP 1150 - SHOCK & TRAUMA FOR THE EMT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course is designed to prepare the EMT student to apply pre-hospital emergency care to patients who have sustained injuries resulting from various mechanisms of injury

including: Abdominal and Genitourinary trauma; Orthopedic trauma; Soft Tissue trauma; Head, Facial, Neck, and Spine Trauma and Nervous System trauma. Special considerations in trauma related injuries will be presented including the physiology of shock as well as multi-system trauma and environmental emergencies. Topics include: Shock and Resuscitation; Trauma Overview; Bleeding; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopedic Trauma; Soft Tissue Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; Special Considerations in Trauma; Environmental Emergencies; and Multi-System Trauma.
Quarter Course Equivalency: New

EMSP 1160 - CLINICAL & PRACTICAL APPLICATIONS FOR THE EMT

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides supervised clinical experience in various clinical settings as well as opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of an EMT. Topics include: Clinicals and Assessment Based Management.
Quarter Course Equivalency: New

EMSP 1510 - ADVANCED CONCEPTS FOR THE AEMT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course serves as the introductory course to the advanced level practice of the Advanced Emergency Medical Technician (AEMT). It expands on the information attained at the EMT level. Topics include: EMS Systems; Documentation; EMS System Communication; Therapeutic Communication; Principles of Pharmacology; Medication Administration; Emergency Medications; Airway Management; Respiration; Artificial Ventilation; Primary Assessment; and Secondary Assessment.
Quarter Course Equivalency: New

EMSP 1520 - ADVANCED PATIENT CARE FOR THE AEMT

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides opportunities to apply fundamental knowledge of basic and selected advanced emergency care and transportation based on assessment findings for the following: an acutely ill patient; a patient in shock,

respiratory failure or arrest, cardiac failure or arrest, and post resuscitation management; and an acutely injured patient. In addition it provides a fundamental knowledge of growth, development, and aging and assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. Topics include: Geriatrics; Patients with Special Challenges; Medical Overview; Neurology; Immunology; Infectious Disease; Endocrine Disorders; Cardiovascular; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Shock and Resuscitation; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopedic Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; and Integration of Medical/Trauma Assessments.
Quarter Course Equivalency: New

EMSP 1530 - CLINICAL APPLICATIONS FOR THE AEMT

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides supervised clinical experience in various clinical settings. Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 1540 - CLINICAL AND PRACTICAL APPLICATIONS FOR THE AEMT

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides supervised clinical experience in various clinical settings as well as opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of an AEMT. Topics include: Clinicals and Assessment Based Management.
Quarter Course Equivalency: New

EMSP 2110 - FOUNDATIONS OF PARAMEDICINE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course introduces the student to the role of the paramedic in today's healthcare system, with a focus on the prehospital setting. This course will also prepare the student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan. Topics include: EMS Systems; Research; Workforce Safety and

Wellness; Documentation; EMS System Communication; Therapeutic Communication; Medical/Legal and Ethics; Life Span Development; Public Health; Incident Management; Air Medical; Scene Size-Up; Primary Assessment; History Taking; Secondary Assessment; Monitoring Devices; and Reassessment.

Quarter Course Equivalency: New

EMSP 2120 - APPLICATIONS OF PATHOPHYSIOLOGY FOR PARAMEDICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course expands the concepts of pathophysiology as it correlates to disease processes. This course will enable the student to apply the general concepts of pathophysiology to the assessment and management of patients in the emergency setting. Topics include: Pathophysiology.

Quarter Course Equivalency: New

EMSP 2130 - ADVANCED RESUSCITATIVE SKILLS FOR PARAMEDICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will equip the paramedicine student with an expanded knowledge of pharmacology, as well as skills used to manage the respiratory system. Students will learn to use these advanced resuscitative skills to mitigate patient care emergencies, and to improve the overall health of the patient. Topics include: Principles of Pharmacology; Medication Administration; Emergency Medications; Airway Management; Respiration; and Artificial Ventilation.

Quarter Course Equivalency: New

EMSP 2140 - ADVANCED CARDIOVASCULAR CONCEPTS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course equips the paramedicine student with an expanded knowledge of the anatomy, physiology, and electrophysiology of the cardiovascular system. Students will also examine the epidemiology of cardiovascular disease, and will begin to integrate advanced assessment skills (including ECG interpretation) into the assessment of cardiac patients. Topics include: Anatomy, Physiology, and Electrophysiology of the Cardiovascular System; Epidemiology of Cardiovascular Disease; Assessment of the Cardiac Patient; Electrocardiographic (ECG) interpretation.

Quarter Course Equivalency: New

EMSP 2310 - THERAPEUTIC MODALITIES OF CARDIOVASCULAR CARE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will enable the student to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient experiencing a cardiovascular emergency. Topics include: Cardiovascular Emergencies and Advanced Cardiovascular Life Support (ACLS).

Quarter Course Equivalency: New

EMSP 2320 - THERAPEUTIC MODALITIES OF MEDICAL CARE

Credit Hours: 5

Weekly Contact Hours: Lecture - 4 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will enable the student to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient experiencing a medical emergency. Topics include: Medical Overview; Neurology; Abdominal and Gastrointestinal Disorders; Immunology; Infectious Disease; Endocrine Disorders; Psychiatric; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Non-Traumatic Musculoskeletal Disorders; Diseases of the Eyes, Ears, Nose, and Throat; and Assessment of Medical Emergencies.

Quarter Course Equivalency: New

EMSP 2330 - THERAPEUTIC MODALITIES OF TRAUMA CARE

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will enable the student to integrate a comprehensive knowledge of causes and pathophysiology into the management of traumatic: cardiac arrest and peri-arrest states; shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest. This course will also include integrating assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient. During this course, the student will complete a nationally recognized pre-hospital trauma course (i.e. PHTLS, ITLS, ATT, etc.). Topics include: Shock and Trauma Resuscitation; Trauma Overview; Bleeding; Chest Trauma; Abdominal

and Genitourinary Trauma; Orthopedic Trauma; Soft Tissue Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; Special Considerations in Trauma; Environmental Emergencies; Multi-System Trauma; and Assessment of Trauma Emergencies.
Quarter Course Equivalency: New

EMSP 2340 - THERAPEUTIC MODALITIES FOR SPECIAL PATIENT POPULATIONS

Credit Hours: 4
Weekly Contact Hours: Lecture - 3 Lab - 2
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course will enable the student to integrate assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for various special patient populations. During this course, the student will also complete a nationally recognized pediatric course (i.e. EPC, PALS, PEPP, etc.). Topics include: Obstetrics; Gynecology; Neonatal Care; Pediatrics; Geriatrics; and Patients with Special Challenges.
Quarter Course Equivalency: New

EMSP 2510 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - I

Credit Hours: 2
Weekly Contact Hours: Lecture - 0 Lab - 6
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course provides the paramedic student with supervised clinical experience in various clinical settings. EMSP 2510 Clinical Applications for the Paramedic - I is one in a series of courses that also includes: EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2520 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - II

Credit Hours: 2
Weekly Contact Hours: Lecture - 0 Lab - 6
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course provides the paramedic student with supervised clinical experience in various clinical settings. EMSP 2520 Clinical Applications for the Paramedic - II is one in a series of courses that also includes: EMSP 2510, EMSP 2530, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the

State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2530 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - III

Credit Hours: 2
Weekly Contact Hours: Lecture - 0 Lab - 6
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course provides the paramedic student with supervised clinical experience in various clinical settings. EMSP 2530 Clinical Applications for the Paramedic - III is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2540 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - IV

Credit Hours: 1
Weekly Contact Hours: Lecture - 0 Lab - 3
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course provides the paramedic student with supervised clinical experience in various clinical settings. EMSP 2540 Clinical Applications for the Paramedic - IV is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2550 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - V

Credit Hours: 1
Weekly Contact Hours: Lecture - 0 Lab - 3
Pre-requisite(s): Program Admission
Co-requisite(s): None
This course provides the paramedic student with supervised clinical experience in various clinical settings. EMSP 2550 Clinical Applications for the Paramedic - V is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2560 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - VI

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2520 Clinical Applications for the Paramedic - VI is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2570 - CLINICAL APPLICATIONS FOR THE PARAMEDIC - VII

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2520 Clinical Applications for the Paramedic - VII is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550 and EMSP 2560. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.
Quarter Course Equivalency: New

EMSP 2710 - FIELD INTERNSHIP FOR THE PARAMEDIC

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides supervised field internship experience in the prehospital advanced life support setting. Topics include: Field Internship.
Quarter Course Equivalency: New

EMSP 2720 - PRACTICAL APPLICATIONS FOR THE PARAMEDIC

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Allows opportunities to demonstrate critical thinking skills and assessment based management techniques through

competency based evaluations relevant to the practice of a Paramedic. Topics include: Assessment Based Management for Paramedics.

Quarter Course Equivalency: New

ENGL 0090 – LEARNING SUPPORT ENGLISH

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Placement Test Scores

Co-requisite(s): None

This course uses a modular approach to emphasize the rules of grammar, punctuation, capitalization, subject/verb agreement, correct verb forms, spelling, writing, and revising skills for basic paragraph development.

Previous Semester Course Equivalency: ENGL 0096 and ENGL 0097 and ENGL 0098

ENGL 1010 - FUNDAMENTALS OF ENGLISH I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Diploma Level Reading and Writing Scores OR READ 0097 and/or ENGL 0097 w/ a “C” or better

Co-requisite(s): None

Emphasizes the development and improvement of written and oral communication abilities. Topics include analysis of writing, applied grammar and writing skills, editing and proofreading skills, research skills, and oral communication skills.

Quarter Course Equivalency: ENG 1010 or ENG 100 or ENG 101 or ENG 111

ENGL 1012 - FUNDAMENTALS OF ENGLISH II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1010

Co-requisite(s): None

Provides knowledge and application of written and oral communications found in the workplace. Topics include writing fundamentals and speaking fundamentals.

Quarter Course Equivalency: ENG 1012 or ENG 102 or ENG 112

ENGL 1101 - COMPOSITION AND RHETORIC

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Explores the analysis of literature and articles about issues in the humanities and in society. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. An introduction to library resources lays the foundation

for research. Topics include writing analysis and practice, revision, and research. Students write a research paper using library resources and using a formatting and documentation style appropriate to the purpose and audience.

Quarter Course Equivalency: ENG 1101 or ENG 191

ENGL 1102 - LITERATURE AND COMPOSITION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 w/ a "C" or better

Co-requisite(s): None

Emphasizes the student's ability to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature in historical and philosophical contexts. Topics include reading and analysis of fiction, poetry, and drama; research; and writing about literature.

Quarter Course Equivalency: ENG 1102 or ENG 193

ENGL 1105 - TECHNICAL COMMUNICATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 w/ a "C" or better

Co-requisite(s): None

Emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include reference use and research, device and process description, formal technical report writing, business correspondence, and technical report presentation.

Quarter Course Equivalency: ENG 1105 or ENG 195

ENGL 2110 - WORLD LITERATURE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 w/a "C or better

Co-requisite(s): None

This course explores the history of the human experience through literature and writing across the cultures of the world. A survey of important works in world literature.

Includes a variety of literary genres: short stories, poetry, drama, nonfiction, and novels. Topics include literature and culture, essential themes and ideas, literature and history, and research skills.

Quarter Course Equivalency: ENG 2110

ENGL 2130 - AMERICAN LITERATURE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 w/ a "C" or better

Co-requisite(s): None

Emphasizes American literature as a reflection of culture and ideas. A survey of important works in American literature.

Includes a variety of literary genres: short stories, poetry, drama, nonfiction, and novels. Topics include literature and culture, essential themes and ideas, literature and history, and research skills.

Quarter Course Equivalency: ENG 2130

ENGT 1000 – INTRODUCTION TO ENGINEERING TECHNOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

Provides a study of engineering technology as a career field and describes the knowledge and skills required for academic and occupational success. Topics include: engineering technology career, measurement and standards, mathematical operators, engineering tools, and engineering concepts. Labs reinforce mathematical, mechanical and electrical concepts through practical exercises, such as measurement and calculation of density of objects, relative humidity, use of digital multi-meter, building circuits, use of precision instruments, and team exercises.

ENGT 2300 – CAPSTONE PROJECT

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): ECET 2101

Co-requisite(s): None

This course will require students to undertake either individual or team projects, by applying knowledge acquired classroom/lab activities in program courses and core courses. The student will create or construct a product, a circuit or mechanism using circuit building, troubleshooting and other engineering skills developed through previous course work. The project activity includes conceptualization, detailed planning and design, project construction, cost and production considerations, quality assurance and project presentation.

ESTH 1000 - INTRODUCTION TO ESTHETICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the fundamental theory and practices of the Professional Esthetician. Emphasis will be placed on professional practices and safety. Topics include: state and local laws, rules and regulations, professional image, history of the skin, care and use of cosmetics, bacteriology, sterilization and sanitation, chemistry for estheticians, ingredients and product analysis, and hazardous duty standards act.

Quarter Course Equivalency: EST 100

ESTH 1010 - ANATOMY AND PHYSIOLOGY OF THE SKIN

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): ESTH 1000

Introduction to anatomy and physiology; disorders of the skin and nutrition and health of the skin. Topics include: cells/tissues/organs, skeletal system, muscular system, nervous system, circulatory system, endocrine system, excretory system, respiration system, digestive system, structure of the skin, disorders of the skin, and nutrition and health of the skin.

Quarter Course Equivalency: EST 101

ESTH 1020 - SKIN CARE PROCEDURES

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 7

Pre-requisite(s): None

Co-requisite(s): ESTH 1000

Introduces the theory, procedures, and products used in the care and treatment of the skin. Topics include: client consultation and preparation, cleansing the skin, techniques for professional massage, facial treatments and body treatments, aromatherapy, body wraps, reflexology, and air borne and blood borne pathogens and OSHA updates.

Quarter Course Equivalency: EST 102

ESTH 1030 - ELECTRICITY AND FACIAL TREATMENTS WITH MACHINES

Credit Hours: 5

Weekly Contact Hours: Lecture - 2 Lab - 7

Pre-requisite(s): None

Co-requisite(s): ESTH 1000

Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: skin analysis equipment, basic skin care products, basic electricity, mens skin care products, post consultation and home care, mechanical versus chemical exfoliations, microdermabrasion, and advanced product types and features.

Quarter Course Equivalency: EST 103

ESTH 1040 - ADVANCED SKIN CARE

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): ESTH 1000

Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: intrinsic aging, analysis of sensitive skin, treatment for hyperpigmentation, causes of acne, methods of holistic

therapy, joining a medical team, and preoperative and postoperative care.

Quarter Course Equivalency: EST 104

ESTH 1050 - COLOR THEORY AND MAKEUP

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): None

Co-requisite(s): ESTH 1000

Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: morphology of hair, hair removal, sanitation, eyebrow shaping, waxing, ingrown hair service, color theory, face proportions and shape, choosing and using makeup products, makeup tools, basic makeup application, camouflage therapy, and medical application.

Quarter Course Equivalency: EST 105

ESTH 1060 - ESTHETICS PRACTICUM I

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): ESTH 1000, ESTH 1010, ESTH 1020, ESTH 1030

Co-requisite(s): ESTH 1040, ESTH 1050

Provides laboratory experience necessary for the development of skill levels to be a competent esthetician. The allocation of time to the various phases of esthetics is prescribed by the state board of cosmetology. This course includes a portion of the hours for licensure. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal.

Quarter Course Equivalency: EST 106

ESTH 1070 - ESTHETICS PRACTICUM II

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): None

Co-requisite(s): ESTH 1060

Provides experience for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of conduct and positive attitudes. The requirements for this course will be met in a laboratory setting. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal.

Quarter Course Equivalency: EST 107

FORS 1010 - INTRODUCTION TO FORESTRY AND NATURAL RESOURCES

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the fundamentals of forestry and natural resources. Topics include: history of forestry, importance of forestry, forest safety, harvesting equipment, and natural resource careers.

Quarter Course Equivalency: FOR 101

FORS 1160 - FOREST SURVEYING AND MAPPING

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): MATH 1012

Introduces the fundamental principles and practices of land surveying and mapping and the use of surveying and mapping instruments. Topics include: surveying and mapping equipment, surveying, surveying and mapping methods, deed search and tract location.

Quarter Course Equivalency: FOR 116 and FOR 117

FORS 1210 - GPS/GIS AERIAL PHOTOGRAPHY

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): FORS 1160, MATH 1012

Co-requisite(s): None

Focuses on application of the fundamental principles and practices of land surveying and mapping and the use of surveying and mapping instruments. Emphasizes areas of plane and boundary surveying and area determination. Topics include: Global positioning systems (GPS), geographical information systems (GIS), area determination, developing maps, and aerial photography.

Quarter Course Equivalency: FOR 121 and FOR 122

FOSC 2037 - VICTIMOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture -3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

While individuals have been crime victims for many years, victimology or the study of crime victims is a relatively recent discipline. The majority of criminological research and discussion has been focused on the offender rather than the victim. This course provides an overview of the principles and concepts of victimology, an analysis of victimization patterns and trends, and the role of victimology in the justice system. In addition the repercussions of victimization, victim reporting patterns and remedies available for victims are also explored.

FRSC 1020 - BASIC FIREFIGHTER-EMERGENCY SERVICES FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the student with information on the applicable laws, policies, and standards that the Firefighter I course is designed, and how the course will be administered. This course will provide the student basic knowledge of where and how the fire service originated from the colonial periods to present day firefighting operations. The student will learn basic roles and responsibilities of a firefighter, how firefighters have to abide by and work from standard operating procedures and guidelines, and how the chain of command works and their position within it. The student will be provided the knowledge on how to communicate within the fire service; whether it with the fire station or on the fire ground.

This course provides the emergency responder with basic principles and functions of the Incident Command System. The course will provide the necessary knowledge and skills to operate within the ICS and their role within the ICS at the fire station, at a non-emergency scene, and at emergency scenes. It will provide also provide the emergency responder with knowledge on how to perform basic skills at emergency scenes that deal with infection control, cardiopulmonary resuscitation, basic first aid measures, and using an AED. Finally, it will provide the emergency responder skills and knowledge on how to recognize the presence of and the potential for a hazardous materials release, and how and who personnel should call.

Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following:

1. Infection Control
2. CPR
3. First Aid
4. ICS-100
5. IS-700
6. NPQ - Hazardous Materials for First Responders Awareness Level

This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.

Quarter Course Equivalency: FSC 102

FRSC 1030 - BASIC FIREFIGHTER - MODULE I

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the firefighter candidate/recruit with basic knowledge and skills to perform various fire ground operations as a firefighter on emergency scenes. The candidate/recruit will learn about safety during all phases

of a firefighters career, the personal protective equipment that is required for training and every emergency response, and how to properly don it for use and doff it after use. The candidate/recruit will learn about the dynamics of fire through fire behavior and how to extinguish the different phases of fires with either portable fire extinguishers or through fire suppression attacks and techniques. The candidate/recruit will also learn the three tactical priorities of Life Safety, Incident Stabilization, and Property Conservation that have to be achieved on every fireground. Basic knowledge and skills will be provided to the candidate/recruit so they can achieve the tactical priorities through various fireground operations such as: response + size-up, forcible entry, ladders, search + rescue, ventilation, water supply, fire hose, fire nozzles, fire streams, salvage, and overhaul.

Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following:

1. Module I

This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.

Quarter Course Equivalency: FSC 103

FRSC 1040 - BASIC FIREFIGHTER - MODULE II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course builds from the skills and knowledge in Module I and provides the knowledge and skills to support the fireground techniques learned in the previous courses. The firefighter will learn various uses of ropes + knots and how to hoist fire fighting tools and equipment. The firefighter will also gain the knowledge and skills of building construction principles that will be used throughout their firefighting career to identify building conditions such as: fire spread and travel, how and where to ventilate, indications of potential building collapse, etc. The firefighter will learn survival techniques that will be used throughout their career to help keep themselves safe and how to rescue themselves or another firefighter. Firefighter rehabilitation will be discussed during this course, so that the firefighter will know how and when to properly rehab themselves before, during, after an emergency response. Knowledge of fire suppression systems will be discussed, so that the firefighter will have a basic understanding of the components of a fire detection, protection, and suppression system. Basic cause determination will be discussed so that firefighters will be

aware of observations during various phases of fireground operations.

Finally to complete the Firefighter I program the firefighter will participate in the following live fire scenarios in order to complete the objectives of the program.

1. Exterior Class A Fire
2. Interior Structure Attack Above Grade Level
3. Interior Structure Attack Below Grade Level
4. Vehicle Fire
5. Dumpster Fire

Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following:

1. NPQ Fire Fighter I

This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.

Quarter Course Equivalency: FSC 104

FRSC 1050 - FIRE AND LIFE SAFETY EDUCATOR I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): FRSC 1020, FRSC 1030, FRSC 1040, FRSC 1141

Co-requisite(s): None

Most structural fires, fire deaths and fire injuries occur in the home. This course addresses some of the most important responsibilities of the modern fire service; teaching the public to prevent or if needed, escape fires and related emergencies. We have adopted the approach that we must learn from each incident then put the information to work to prevent fires and fire losses through public fire and life safety education. Topics include: general requisite knowledge, administration, planning and development, education and implementation, and evaluation.

Quarter Course Equivalency: FSC 105

FRSC 1060 - FIRE PREVENTION, PREPAREDNESS AND MAINTENANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the student with the necessary skills of fire prevention, emergency scene preparedness, and tool and equipment maintenance. Specifically addressed are the following topics: basic principles of building construction; knowledge of water supply systems to include pressurized systems, rural water supplies, and alternative water supplies; perform hydrant flow tests as part of water flow assessments

for water supplies coming from pressurized hydrants; discuss fire detection, suppression, and suppression systems; consolidate all knowledge to perform a pre-incident plan of a facility; selection of proper tools and techniques of cleaning and proper maintenance of those tools; discuss hoselines, nozzles, and fire streams to perform hoseline lays with proper nozzles attached and select the proper fire stream for the class of fire encountered on various types of fire scenes; and service testing of fire hoses. Finally, this course will conclude fire cause determination to gain necessary knowledge and skills to perform a fire investigation to determine the point of origin and the cause of a fire in a structure.

To participate in this course the student must also attain national certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040 and FRSC 1141.

Quarter Course Equivalency: FSC 106

FRSC 1070 - INTRODUCTION TO TECHNICAL RESCUE

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides an awareness of the principles of technical rescue through utilization of readings from the text, classroom discussion, practical skills, and practice. This course includes Extricating a victim entrapped in a Motor Vehicle, Assisting a Rescue Team in various technical rescue operations including but not limited to Trench and Excavation, Rope Rescue, Water Rescue, Confined Space Operations, Structural Collapse, Vehicle and Machinery Rescue, and Wilderness Search and Rescue. The student will learn the application of knots, rigging principles, anchor selection criteria, system safety check procedures, rope construction and rope rescue equipment applications and limitations.

This course fulfills NFPA 1001, Standard for Firefighter Professional Qualifications, 2008 Edition Chapter 6 sections 6.4.1, 6.4.2 and NFPA 1006, Standard for Technical Rescuer Professional Qualifications, 2008 Edition Chapter 5 sections 5.2, 5.3, 5.4, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.5.5, 5.5.8, 5.5.9, 5.5.11, 5.5.14 and NFPA 1670, Standard on operations and Training for Technical Search and Rescue Incidents, 2004 Edition sections 5.2.2, 6.2.2, 6.3.47.2.48.2.3, 9.2.3, 10.2.2, 11.2.3.

To participate in this course, the student must also have attained national certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040 and FRSC 1141.

Quarter Course Equivalency: FSC 107

FRSC 1080 - FIREGROUND OPERATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will provide the student basic knowledge of the roles and responsibilities of the Firefighter II; the standard operating procedures and guidelines of firefighters; fire service communications relative to obtaining information from occupants and owners to complete an incident report can be completed accurately; Incident Command principles and their application; practical fireground hydraulics to supply proper nozzle pressures while participating in live fire scenarios.

To participate in this course the student must also attain National certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040, FRSC 1141.

Quarter Course Equivalency: FSC 108

FRSC 1100 - INTRODUCTION TO THE FIRE SERVICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course is a survey of the philosophy and history of Fire Protection, loss of property and life by fire, review of municipal fire defenses and the organization and function of the federal, state, county, city and private fire protection. Includes introduction to: fire technology education and the firefighter selection process; fire protection career opportunities; public fire protection; chemistry and physics of fire; public and private support organizations; fire department resources, fire department administration; support functions; training, fire prevention; codes and ordinances; fire protection systems and equipment; emergency incident management; and emergency operations.

Quarter Course Equivalency: FSC 101

FRSC 1110 - FIRE ADMINISTRATION – SUPERVISION AND LEADERSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the necessary knowledge and skills for an emergency responder to become a successful fire officer. The student will learn how to become a responsible leader and supervisor to a crew of firefighters, how to manage a budget for the fire station, understand standard operating procedures, and be able to manage an incident.

Also, an understanding of basic fire prevention methods, fire and building codes, and records systems will be covered throughout the course.

Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to qualify for a certificate of completion or seek certification through the appropriate governing agency for the following:

1. NFA Leadership I
2. NFA Leadership II
3. NFA Leadership III

This course meets the requirements NFPA 1021 Standard for Fire Officer Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.

Quarter Course Equivalency: FSC 110

FRSC 1121 - FIREFIGHTING STRATEGY AND TACTICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course presents the principles of applying fire department resources to mitigate a fire or related emergency. General topics include: principles of firefighting, size up, engine company operations, hose line selection and placement, water supply, standpipe and sprinkler operations, ladder company operations, forcible entry, ventilation and search and rescue. Specific-fires reviewed will include private dwellings, multiple dwellings, commercial buildings, high-rise structures, buildings under construction, structural collapse, flammable liquid and gas fires and waterfront fires.

Quarter Course Equivalency: FSC 121

FRSC 1132 - FIRE SERVICE INSTRUCTOR

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Students will learn to analyze jobs and information, then prepare and present related training. Emphasis is placed on planning, organizing, presenting, and testing, using methodologies appropriate to the subject. Topics include: orientation to emergency services instruction, communication, planning and analysis, objectives, learning, assessment, methods of instruction, instructor materials, media, training related group dynamics, classroom management, the legal environment, and NPQ Fire Instructor I. Students will have numerous hands-on opportunities to apply what they learn. Successful completers of FRSC 1132 are qualified to test for the National Professional Qualification (NPQ) Fire Instructor I Exam.

Quarter Course Equivalency: FSC 132

FRSC 1141 - HAZARDOUS MATERIALS OPERATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides emergency responder personnel with the information to respond safely, limit possible exposure to all personnel, and to provide information to the proper authorities as being a primary goal while reacting in the defensive mode of operation. The first responder operations level responsibilities are recognition and identification of a hazardous material scene, the gathering of information, the notification of the proper authorities, the isolation of the area by setting perimeters/zones, possible evacuation, protection by initiating the incident management system, emergency decontamination, and performing defensive actions only. Even though the first responder is a member of an emergency response service, they are not trained in specialized protective clothing or specialized control equipment. Thus, the first responder is not a member of a hazardous materials response team. This course meets the requirements of NFPA 472 - Professional Competence of First Responders to Haz Mat Incidents at the Operations Level. This course also meets the requirements of OSHA 29 CFR 1910.120, EPA, USDOT, and all other appropriate state, local and provincial occupational health and safety regulatory requirements.

Also required as Pre-requisite: NPQ FF I and NPQ Hazardous Materials Awareness Level

Quarter Course Equivalency: FSC 141

FRSC 1151 - FIRE PREVENTION AND INSPECTION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Emphasis is placed on the shared responsibility of all fire service personnel to prevent fires and fire losses by survey of fire prevention activities, conducting basic fire prevention inspections, practicing life safety codes, review of local and state laws regarding fire inspection, and review of applicable codes and standards. Topics include: code administration, inspection, use and occupancy, building limitations and types of construction, fire resistive construction elements, installation of fire protection systems, mean of egress, interior finish requirements, general fire safety provisions, maintenance of fire protection systems, means of egress maintenance for occupancies, hazardous materials, flammable liquids and aerosols, detonation and deflagration hazards, hazardous assembly occupancies, other storage and processing occupancies, compressed gases and cryogenic liquids, pesticides and other health hazards, and using referenced standards. Successful completion of FRSC 1151

qualifies individuals to test for the National Professional Qualification (NPQ) Inspector Level-I examination
Quarter Course Equivalency: FSC 151

FRSC 1161 - FIRE SERVICE SAFETY AND LOSS CONTROL

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will provide the necessary knowledge and skills for the emergency responder to understand occupational safety and health and be able to develop safety programs. The course starts with an introduction to occupational safety and health and covers the history, national agencies that produce injury and fatality reports, and efforts that have been made to address safety and health problems in emergency service occupations. The course will review safety related regulations and standards and discuss how to implement them through risk management processes. There will be lectures and discussions on pre-incident safety, safety at fire emergencies, safety at medical and rescue emergencies, safety at specialized incidents, and post-incident safety management. Personnel roles and responsibilities will be covered, so that knowledge can be gained on the relationship to the overall safety and health program by the different responding and administrative personnel at emergency scenes. Lectures and discussions on how to develop, manage, and evaluate safety programs will be covered to provide general knowledge and basic skills on occupational health and safety programs. Finally information management and various other special topics will be covered to gain knowledge on the legal, ethical, and financial considerations that programs need to be aware of and how to collect the data and report it.

Quarter Course Equivalency: FSC 161

FRSC 2100 - FIRE ADMINISTRATION MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will provide the necessary knowledge and skills for the emergency responder to become a diverse leader and manager in their department. The course starts with the history of the fire service which focuses on the historical events that have forged the fire service today. Discussions on preparing for the future are designed to provide information to develop a game plan for personal success. Leadership and Management principles will be taught to blend the academics of leadership and management research into what occurs in the fire service organization on a daily basis. Leadership

styles will be discussed to help understand how to lead and manage and, as important, why its done. The course will take an insightful look into how people handle change personally and organizationally. Discussions on ethics will be focused on the elements critical to ethical leadership and management practices. The course will explore the elements of team building and provide a depth of understanding how to blend various styles and personalities to get the most from people. Discussions on managing emergency services will target budgeting and personnel management the support elements that are so vital to every organization. Quality of the fire service will also be looked at for methods of quality improvement and their applications to improve the services delivered to citizens everyday. An in-depth overview of the changes in disaster planning and response since 9-11, and includes ways to help with community evaluation and preparedness processes. Finally, shaping the future will explore the possibilities of what may occur in the fire service and how you can play an important role in helping to shape the fire service of the future.

Quarter Course Equivalency: FSC 201

FRSC 2110 - FIRE SERVICE HYDRAULICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course begins with the history and theories of the use of water for fire extinguishment then moves to practical application of the principles of hydraulics in water systems and on the fire ground. Topics include: water at rest and in motion, velocity and discharge, water distribution systems, fire service pumps, friction loss, engine and nozzle pressures, fire streams, standpipe systems, automatic sprinkler systems, firefighting foams, and the clip board friction loss system.

Quarter Course Equivalency: FSC 210

FRSC 2120 - FIRE PROTECTION SYSTEMS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

A review of fire detection and protection systems including: automatic sprinkler systems, portable fire extinguishers, restaurant/kitchen systems, special hazard systems, detection systems, and control systems. The applicable laws, codes and standards will be introduced along with regulatory and support agencies. Specific topics include: introduction to fire protection systems, water supply systems for fire protection systems, water-based suppression systems, nonwater-based suppression systems, fire alarm systems, smoke management systems, and portable fire extinguishers.

Quarter Course Equivalency: FSC 220

FRSC 2130 - FIRE SERVICE BUILDING CONSTRUCTION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Presents building construction features from the perspective of the fire service with emphasis placed on the use of building construction information to prevent and reduce fire fighter and civilian deaths and injuries. Topics include: principles of building construction, building construction classification, building construction hazards and tactical considerations, structural loads and stresses, structural building components and functions, fire resistance and flame spread, building codes, structural failure and firefighter safety, and firefighter safety in structural and wildland firefighting.

Quarter Course Equivalency: FSC 230

FRSC 2141 - INCIDENT COMMAND

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

The Incident Command course is designed to illustrate the responsibilities to use, deploy, implement, and/or function within an Incident Command System (ICS) as well as functioning within multi-jurisdictions incident under the Incident Management System (IMS). The course emphasizes the need for incident management systems, an overview of the structure and expandable nature of ICS, an understanding of the command skills needed by departmental officers to use ICS guidelines effectively, and scenario practice on how to apply ICS and IMS. The National Incident Management System (NIMS) will illustrate and provide the consistent nationwide template to enable all government, private-sectors, and non-governmental organizations to work together during virtual all domestic incidents. These course competencies will cover those objectives entailed in NIMS 100, 200, 700, and 800.

Quarter Course Equivalency: FSC 241

FRSC 2170 - FIRE AND ARSON INVESTIGATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Presents an introduction to Fire Investigation. Emphasis is placed upon: fire behavior, combustion properties of various materials, sources of ignition, and investigative techniques for - structures, grassland, wildland, automobiles, vehicles, ships and other types of fire investigation, causes of electrical fires, chemical fires, explosive evaluations, laboratory

operation, Techniquet used in fire deaths and injuries, arson as a crime, other techniques, State and Federal laws, and future trends in fire investigative technology.

Quarter Course Equivalency: FSC 270

HECT 1000 - HEALTH CARE TECHNICIAN SKILLS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): ALHS 1010, ALHS 1040, ALHS 1090, ENGL 1010, MATH 1012

Co-requisite(s): None

Provides an introduction to the health care techniques and skills needed to perform in a hospital and/or health care setting in the professional (ancillary) services areas. Provides an overview of the health care field, professional ethics and malpractice, certification and licensure, duties and responsibilities of the health care technician, review of safety, infection control, standard precautions, related anatomy and physiology and related medical terminology. Also introduces blood collecting techniques, including complications, specimen processing, special collection techniques, electrocardiography techniques, point-of-care testing, basic patient care skills and basic respiratory techniques.

Quarter Course Equivalency: HCT 100

HECT 1100 - HEMODIALYSIS PATIENT CARE

Credit Hours: 7

Weekly Contact Hours: Lecture - 5 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course will focus on the theoretical and clinical aspects of hemodialysis, including the duties and responsibilities essential to the delivery of patient care in the chronic outpatient setting.

Quarter Course Equivalency: HCT 110

HECT 1120 - HEMODIALYSIS PRACTICUM

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 6

Pre-requisite(s): None

Co-requisite(s): HECT 1100

This course will focus on the theoretical and clinical aspects of hemodialysis, including the duties and responsibilities essential to the delivery of patient care in the chronic outpatient setting.

Quarter Course Equivalency: HCT 120

HIMT 1100 - INTRODUCTION TO HEALTH INFORMATION TECHNOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course focuses on orienting the student to health information management. Topics include introducing students to the structure of healthcare in the United States and its providers, and the structure and function of the American Health Information Management Association (AHIMA).

Quarter Course Equivalency: HIT 191 or HIT 194 or HIT 201

HIMT 1105 - ESSENTIALS OF HEALTHCARE ACCESS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ALHS 1090

Co-requisite(s): None

Provides comprehensive coverage of healthcare access service roles and processes employed in healthcare settings. Emphasis is placed on the knowledge and skills needed to competently interact with healthcare most valuable customer - the patient while following business policies and procedures. Topics include: role of healthcare access services staff and the impact on national patient satisfaction scores; professional ethics and cultural considerations; professionalism and competency; customer service excellence; meeting insurance payer guidelines; compliance standards for handling and protecting health information. Prepares student as candidate for NAHAM's Certified Healthcare Access Associate exam.

Quarter Course Equivalency: HIT 1105

HIMT 1150 - COMPUTER APPLICATIONS IN HEALTHCARE

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): COMP 1000

Co-requisite(s): None

Designed to provide students with computer and software skills used in medical offices. Topics include hardware and software components of computers for medical record applications; database software and information management; specialized information management systems in healthcare; methods of controlling confidentiality and patient rights; accuracy and security of health information data in computer systems as well as future directions of information technology in healthcare.

Quarter Course Equivalency: HIT 1150 or HIT 196

HIMT 1200 - LEGAL ASPECTS OF HEALTHCARE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course focuses on the study of legal principles applicable to health information, patient care and health records. Topics include: working of the American Legal System, courts and legal procedures, principles of liability, patient record requirements, access to health information, confidentiality and informed consent, the judicial process of health information, specialized patient records, risk management and quality assurance, HIV information, and the electronic health record.

Quarter Course Equivalency: HIT 1200 or HIT 192

HIMT 1205 - REVIEW/PRACTICE FOR CHAA EXAM

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): HIMT 1105

Co-requisite(s): None

This course provides students with the opportunity to prepare for the national Association of Healthcare Access Management's (NAHAM) Certified Healthcare Access Associate (CHAA) certification exam. Course is designed to provide review of skills needed to prepare for the CHAA credential exam. CHAAs are healthcare access associates who ensure quality of data collection and security of data, and customer service. CHAAs use computer applications to schedule services and analyze data to determine patient financial responsibility. Course provides comprehensive practice multiple choice test databank (300+ questions). Topics include: review of content specific to the healthcare access services' field and test-taking strategies.

Quarter Course Equivalency: HIT 1205

HIMT 1250 - HEALTH RECORD CONTENT AND STRUCTURE

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course provides a study of content, storage, retrieval, control, retention, and maintenance of health information. Topics include: health data structure, content and standards, healthcare information requirements and standards.

Quarter Course Equivalency: HIT 1250 or HIT 193

HIMT 1350 - PHARMACOTHERAPY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): BUSN 2300 or ALHS 1090

Co-requisite(s): None

Introduces drug therapy with emphasis on safety, classification of drugs, their action, side effects, and/or adverse reactions. Also introduces the basic concept used in the administration of drugs. Topics include: introduction

to pharmacology, sources and forms of drugs, drug classification, and drug effects on the body systems.
Quarter Course Equivalency: HIT 1350 or MAS 103

HIMT 1400 - CODING AND CLASSIFICATION - ICD BASIC

Credit Hours: 4
Weekly Contact Hours: Lecture - 2 Lab - 4
Pre-requisite(s): (BIOL 2113/2113L and BIOL 2214/2114L; or ALHS 1011) and (ALHS 1090 or BUSN 2300) and HIMT 1350
Co-requisite(s): MAST 1120
This course provides the student an introduction to Medical Coding + Classification of diseases, injuries, encounters, and procedures using standard applications of Medical Coding Guidelines to support reimbursement of healthcare services.
Quarter Course Equivalency: HIT 1400 or HIT 198

HIMT 1410 - CODING AND CLASSIFICATION -ICD ADVANCED

Credit Hours: 3
Weekly Contact Hours: Lecture - 2 Lab - 2
Pre-requisite(s): HIMT 1400
Co-requisite(s): None
This course is a continuation of HIT 1400 (Coding and Classification I). This course provides the student with case studies for in-depth review of inpatient and outpatient record formats as found in current healthcare settings. Advanced coding skills and use of industry applications to apply coding and billing standards will be the focus to develop auditing and compliance strategies in the work setting.
Quarter Course Equivalency: HIT 1410

HIMT 2150 - HEALTHCARE STATISTICS

Credit Hours: 2
Weekly Contact Hours: Lecture - 1 Lab - 2
Pre-requisite(s): MATH 1111
Co-requisite(s): HIMT 2200
This course analyzes the study of methods and formulas used in computing and preparing statistical reports for health care services and vital records. It also focuses on the study of methods and techniques used in presenting statistical data.
Quarter Course Equivalency: HIT 2150 or HIT 197

HIMT 2200 - PERFORMANCE IMPROVEMENT

Credit Hours: 2
Weekly Contact Hours: Lecture - 2 Lab - 0
Pre-requisite(s): None
Co-requisite(s): None
This course introduces the students to the peer review and the role health information plays in evaluating patient care. The course investigates the components of performance improvement programs in health care facilities,

including quality assessment, utilization management, risk management, and critical clinical pathways. State and local standards are included as well as review of the federal governments role in health care and accreditation requirements of various agencies.
Quarter Course Equivalency: HIT 2200

HIMT 2300 - HEALTHCARE MANAGEMENT

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): None
Co-requisite(s): None
This course will engage in the functions of a manager, planning, organizing, decision making, staffing, leading or directing, communication and motivating. Further study will include principles of authority/ responsibility, delegation and effective communication, organization charts, job descriptions, policies and procedures, employee motivation, discipline and performance evaluation.
Quarter Course Equivalency: HIT 2300 or HIT 203

HIMT 2400 - CODING AND CLASSIFICATION - CPT/ HCPCS

Credit Hours: 3
Weekly Contact Hours: Lecture - 1 Lab - 4
Pre-requisite(s): HIMT 1400
Co-requisite(s): None
This course provides an introduction to, and application of, codes using CPT/HCPCS system. Codes will be applied to workbook exercises, case studies, and actual outpatient charts. Codes will be assigned manually as well as by an encoder.
Quarter Course Equivalency: HIT 2400

HIMT 2410 - REVENUE CYCLE MANAGEMENT

Credit Hours: 2
Weekly Contact Hours: Lecture - 2 Lab - 0
Pre-requisite(s): HIMT 1400
Co-requisite(s): None
This course focuses on how the revenue cycle is impacted by various departments within the facility such as patient access/registration, case management/quality review, health information management, and patient accounting. Subjects include insurance plans, medical necessity, claims processing, accounts receivable, chargemaster, DRGs, APCs, edits, auditing and review. ICD and CPT coding as they relate to the billing function will be reviewed. The importance of revenue cycle management for fiscal stability is emphasized.
Quarter Course Equivalency: HIT 2410 or HIT 199

HIMT 2460 - HEALTH INFORMATION TECHNOLOGY PRACTICUM

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): HIMT 1200, HIMT 1250

Co-requisite(s): HIMT 2400

This course will allow students to perform advanced functions of a health information management (HIM) department. Students will work in realistic work environments in either a traditional, non-traditional, or lab setting. Activities will include application of all HIT coursework. The student will also learn professional skills to prepare them for employment in the HIM career field.

Quarter Course Equivalency: HIT 2460 or HIT 205

HIMT 2500 - CERTIFICATION SEMINAR

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): None

Co-requisite(s): None

This course provides students with the opportunity to review for the certification exam. Students are also afforded the opportunity to develop a portfolio as they seek to make the transition into the workforce. Topics include: searching the job market; preparing the portfolio; stress management and burnout; test-taking strategies; and reviewing for the certification exam.

Quarter Course Equivalency: HIT 2500 or HIT 206

HIST 1111 - WORLD HISTORY I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Emphasizes the study of intellectual, cultural, scientific, political, and social contributions of the civilizations of the world and the evolution of these civilizations during the period from the prehistoric era to early modern times. Topics include the Prehistoric Era the Ancient Near East, Ancient India, Ancient China, Ancient Rome, Ancient Africa, Islam, the Americas, Japan, Ancient Greece, the Middle Ages, and the Renaissance.

Quarter Course Equivalency: HIS 1111

HIST 1112 - WORLD HISTORY II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Emphasizes the study of the intellectual, cultural, scientific, political, and social contributions of the civilizations of the world and the evolution of these civilizations during

the period from early modern times to the present. Topics include transitions to the Modern World, scientific revolution and the Enlightenment, political modernization, economic modernization, imperialism, and the Twentieth Century.

Quarter Course Equivalency: HIS 1112

HIST 2111 - U.S. HISTORY I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Emphasizes the study of U. S. History to 1877 to include the post-Civil War period. The course focuses on the period from the Age of Discovery through the Civil War to include geographical, intellectual, political, economic and cultural development of the American people. It includes the history of Georgia and its constitutional development. Topics include colonization and expansion; the Revolutionary Era; the New Nation; nationalism, sectionalism, and reform; the Era of Expansion; and crisis, Civil War, and reconstruction.

Quarter Course Equivalency: HIS 2111

HIST 2112 - U.S. HISTORY II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Emphasizes the study of the social, cultural, and political history of the United States from 1865 to the beginning of the twenty-first century and will equip the student to better understand the problems and challenges of the contemporary world in relation to events and trends in modern American history. The course also provides an overview of the history of Georgia and the development of its constitution. Topics include the Reconstruction Period; the great West, the new South, and the rise of the debtor; the Gilded Age; the progressive movement; the emergence of the U. S. in world affairs; the Roaring Twenties; the Great Depression; World War II; the Cold War and the 1950s; the 1960s and 1970s; and America since 1980.

Quarter Course Equivalency: HIS 2112

HORT 1000 - HORTICULTURE SCIENCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the fundamentals of plant science and horticulture as a career field. Emphasis will be placed on an industry overview; plant morphology; plant physiology; environmental factors affecting horticulture practices; soil

physical and chemical properties; fertilizer elements and analysis; and basic propagation techniques.

Quarter Course Equivalency: EHO 100

HORT 1010 - WOODY ORNAMENTAL PLANT IDENTIFICATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides the basis for a fundamental understanding of the taxonomy, identification, and culture requirements of woody plants. Topics include: introduction to woody plants, classification of woody plants, and woody plant identification and culture requirements.

Quarter Course Equivalency: EHO 101

HORT 1020 - HERBACEOUS PLANT IDENTIFICATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Program Admission

Co-requisite(s): None

Emphasizes the identification, selection, and cultural requirements of herbaceous plants. Topics include: introduction to herbaceous plants, plant classification and nomenclature of herbaceous plants, herbaceous plant identification and culture requirements and seasonal color management.

Quarter Course Equivalency: EHO 102

HORT 1030 - GREENHOUSE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course helps to prepare students for a career in the management of commercial greenhouses, conservatories and institutional greenhouses. Emphasis is placed on greenhouse construction; operation and management; regulating and controlling the environment; applying cultural practices as they affect plant physiological processes and influence plant growth and development; and management of a greenhouse business.

Quarter Course Equivalency: EHO 103

HORT 1040 - LANDSCAPE INSTALLATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

This course helps develop skills needed to prepare an area for plant and vital non-plant materials as well as install the

landscape items as intended by the designer. Topics include: Workplace safety, retaining wall construction, landscape paving, irrigation and drainage, plant installation, and managerial functions related to landscape installation.

Quarter Course Equivalency: EHO 104 and EHO 107

HORT 1050 - NURSERY PRODUCTION AND MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Develops skills necessary to propagate and produce both container and field grown nursery stock. Topics include: industry overview, facility design, propagation techniques and environment, field grown and container production, and managerial functions for nursery production.

Quarter Course Equivalency: EHO 105

HORT 1060 - LANDSCAPE DESIGN

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

Introduces design principles, drawing skills, and plant selection techniques required to produce landscape plans for residential/commercial clients. Topics include: landscape design principles, sketching and drawing skills, site analysis, plant and material selection, and landscape design process.

Quarter Course Equivalency: EHO 106

HORT 1080 - PEST MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course provides an introduction to the principles and mechanisms of integrated pest management across a diverse array of pests including insects, weeds, plant pathogens, nematodes and vertebrates. Specifically, the course will provide students with a fundamental and practical understanding of integrated pest management in a landscape setting with emphasis on pest identification and control; pesticide application safety; and legal requirements for state licensure.

Quarter Course Equivalency: EHO 108

HORT 1120 - LANDSCAPE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

This course introduces cultural techniques required for proper landscape management with emphasis on practical application and managerial techniques. Topics include: landscape management, safe operation and maintenance of landscape equipment, and administrative functions for landscape managers.

Quarter Course Equivalency: EHO 112

HORT 1140 - HORTICULTURE BUSINESS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course presents managerial techniques required for business success in a chosen horticultural field. All aspects of establishing and managing a small business will be addressed. Emphasis will be placed on strategic planning; financial management; marketing strategies; human resource management; and operations and administration.

Quarter Course Equivalency: EHO 114

HORT 1150 - ENVIRONMENTAL HORTICULTURE INTERNSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

Provides the student with practical experience in an actual job setting. This internship allows the student to become involved in on-the-job environmental horticulture applications that require practice and follow through. Topics include: work ethics, skills, and attitudes; demands of the horticulture industry; horticultural business management; and labor supervision.

Quarter Course Equivalency: EHO 115

HORT 1310 - IRRIGATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

Provides students with exposure to the basic principles of hydraulics and fluidics. Special attention is given to watering plant materials in various soil and climatic conditions through the use of irrigation. Topics include: industry overview; fluidics and hydraulics; system design and installation.

Quarter Course Equivalency: EHO 131

HORT 1330 - TURFGRASS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

A study of turfgrass used in the southern United States. Topics include: industry overview, soil and soil modification; soil fertility; turf installation; turf maintenance, turf diseases, insects and weeds; and estimating costs on management practices

Quarter Course Equivalency: EHO 133

HORT 1500 - SMALL GAS ENGINE REPAIR AND MAINTENANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides instruction in basic small engine maintenance. Topics include: engine types; ignition systems; fuel systems; lubrication, filtration, and maintenance; and engine repair.

Quarter Course Equivalency: EHO 150

HORT 1560 - COMPUTER-AIDED LANDSCAPE DESIGN

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

Introduces computer aided landscape design techniques and used in landscape design projects. Emphasis is placed on practical application of landscape design processes through use of computer applications. Topics include: software commands; scale and layers operations; and drawing and design.

Quarter Course Equivalency: EHO 156

HORT 1750 - INTERIORSCAPING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course develops students' skills in designing, installing, and maintaining interior plantings. Topics include: an industry overview, environmental requirements, nutrient requirements, maintenance practices, plant disorders, and designs and installations.

Quarter Course Equivalency: EHO 175

HUMN 1101 - INTRODUCTION TO HUMANITIES

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 w/ a "C" or better

Co-requisite(s): None

Explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts,

music, and literature. The humanities provide insight into people and society. Topics include historical and cultural developments, contributions of the humanities, and research.
Quarter Course Equivalency: HUM 1101 or HUM 191

ICET 2010 – ELECTROMECHANICAL DEVICES

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab –3

Pre-requisite(s): ECET 2101

Co-requisite(s): None

This course introduces electromechanical devices which are essential control elements in electrical systems. Topics include: fundamentals of electromechanical devices, control elements in electrical circuits, typical devices such as generators and alternators, D.C. and A.C. motors and controls, and transformers. Quantitative analysis of power losses, power factors, and efficiencies in D.C., single-phase and three-phase dynamos are stressed. Laboratory work parallels class work.

ICET 2020 – INSTRUMENTATION AND PROCESS MANAGEMENT

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab –3

Pre-requisite(s): ICET 2010

Co-requisite(s): None

This course introduces control system components and theory as they relate to controlling industrial processes. Course covers identification, interpretation and design of loop and piping & instrumentation (P&ID) drawings. Mechanical, fluidic, temperature, and miscellaneous sensors are studied with emphasis on measuring techniques. Topics include: open and closed loop control theory, feedback, transducers, signal conditioning, P&IDs and control hardware and actuators. Laboratory work heavily emphasizes practical exercises and applications.

ICET 2050 – PROCESS CONTROL

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab –3

Pre-requisite(s): ICET 2020, ICET 2030

Co-requisite(s): None

Provides a study of process control system design. Students explore system design and tuning, integration of sensors, transmitters, indicators, controllers and final control elements. Industrial electronics, control loop theory, PID (Proportional, Integral, Derivative) control theory, loop tuning, and control loop troubleshooting are emphasized.

IDFC 1007 - INDUSTRIAL SAFETY PROCEDURES

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides an in-depth study of the health and safety practices required for maintenance of industrial, commercial, and home electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation.

Quarter Course Equivalency: IFC 100

IDFC 1011 - DIRECT CURRENT I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): MATH 1012 or MATH 1013

Introduces direct current (DC) concepts and applications. Topics include: electrical principles and laws; batteries; DC test equipment; series, parallel, and simple combination circuits; and laboratory procedures and safety practices.

Quarter Course Equivalency: IFC 101

IDFC 1012 - ALTERNATING CURRENT I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): IDFC 1011

Introduces the theory and application of varying sine wave voltages and current. Topics include: magnetism, AC wave generation, AC test equipment, inductance, capacitance, and basic transformers.

Quarter Course Equivalency: IFC 102

IDSY 1011 - INDUSTRIAL COMPUTER APPLICATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

Provides a foundation in industrial computers and computer systems with a focus in linking computers to the plant floor process. Topics include: hardware, software, boot sequence, configuration, troubleshooting, and communication platforms.

Quarter Course Equivalency: IDS 101

IDSY 1020 - PRINT READING AND PROBLEM SOLVING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces practical problem solving techniques as practiced in an industrial setting. Topics include: analytical problem solving, troubleshooting techniques, reading blueprints and

technical diagrams, schematics and symbols, specifications and tolerances. The course emphasizes how the machine or mechanical system works, reading engineering specifications and applying a systematic approach to solving the problem.
Quarter Course Equivalency: IDS 102

IDSY 1100 - BASIC CIRCUIT ANALYSIS

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 6

Pre-requisite(s): None

Co-requisite(s): MATH 1012 or MATH 1013

This course introduces direct current concepts and applications, alternating current theory and application of varying sine wave voltages and current, and the physical characteristics and applications of solid state devices. Topics include, but are not limited to, electrical laws and principles, magnetism, series, parallel, and simple combination circuits, inductance and capacitance, diodes and amplifiers, and semiconductor fundamentals.

Quarter Course Equivalency: IFC 101 and IFC 102 and IFC 103

IDSY 1101 – DC CIRCUIT ANALYSIS

Credit Hours: 3

Weekly Contact Hours: Lecture – 2.5 Lab – .5

Pre-requisite(s): None

Co-requisite(s): None

This course introduces direct current (DC) concepts and applications. Topics include: electrical principles and laws; batteries; DC test equipment; Series, parallel, and simple combination circuits; and laboratory procedures and safety practices.

IDSY 1105 – AC CIRCUIT ANALYSIS

Credit Hours: 3

Weekly Contact Hours: Lecture – 2.5 Lab – .5

Pre-requisite(s): None

Co-requisite(s): None

This course introduces alternating current concepts, theory, and application of varying sine wave voltages and current, and the physical characteristics and applications of solid state devices. Topics include, but are not limited to, electrical laws and principles, magnetism, inductance and capacitance.

Quarter Course Equivalency: IDS 105

IDSY 1110 - INDUSTRIAL MOTOR CONTROLS I

Credit Hours: 5

Weekly Contact Hours: Lecture - 2 Lab - 8

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the fundamental concepts, principles, and devices involved in industrial motor controls, theories and applications of single and three-phase motors, wiring motor control circuits, and magnetic starters and braking.

Topics include, but are not limited to, motor theory and operating principles, control devices, symbols and schematic diagrams, NEMA standards, Article 430 NEC and preventative maintenance and troubleshooting.
Quarter Course Equivalency: IDS 105 and IDS 110 and IDS 113

IDSY 1120 - BASIC INDUSTRIAL PLC'S

Credit Hours: 5

Weekly Contact Hours: Lecture - .5 Lab - 4.5

Pre-requisite(s): None

Co-requisite(s): IDSY 1110

This course introduces the operational theory, systems terminology, PLC installation, and programming procedures for Programmable Logic Controllers. Emphasis is placed on PLC programming, connections, installation, and start-up procedures. Other topics include timers and counters, relay logic instructions, and hardware and software applications.
Quarter Course Equivalency: (IDS 101 and IDS 141) or (IDS 107 and IDS 141)

IDSY 1130 - INDUSTRIAL WIRING

Credit Hours: 5

Weekly Contact Hours: Lecture - 1.75 Lab - 6.5

Pre-requisite(s): None

Co-requisite(s): IDSY 1100

Teaches the fundamental concepts of industrial wiring with an emphasis on installation procedures. Topics include: grounding, raceways, three-phase systems, transformers (three-phase and single-phase), wire sizing, overcurrent protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors.

Quarter Course Equivalency: IDS 103

IDSY 1150 - DC AND AC MOTORS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): None

Co-requisite(s): None

Introduces the fundamental theories and applications of single-phase and three-phase motors. Topics include: motor theory and operating principles, motor terminology, motor identification, NEMA standards, AC motors, DC motors, scheduled preventive maintenance, and troubleshooting and failure analysis.

Quarter Course Equivalency: IDS 105

IDSY 1170 - INDUSTRIAL MECHANICS

Credit Hours: 5

Weekly Contact Hours: Lecture - 2.5 Lab - 6

Pre-requisite(s): None

Co-requisite(s): None

This course introduces and emphasizes the basic skill necessary for mechanical maintenance personnel. Instruction

is also provided in the basic physics concepts applicable to the mechanics of industrial production equipment, and the application of mechanical principles with additional emphasis on power transmission and specific mechanical components.

Quarter Course Equivalency: (IDS 101 and IDS 215) or (IDS 107 and IDS 215)

IDSY 1180 - MAGNETIC STARTERS AND BRAKING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): None

Co-requisite(s): IDSY 1150

Provides instruction in wiring motor control circuits. Emphasis is placed on designing and installing magnetic starters in across-the-line, reversing, jogging circuits, and motor braking. Topics include: control transformers, full voltage starters, reversing circuits, jogging circuits, and braking.

Quarter Course Equivalency: IDS 113

IDSY 1190 - FLUID POWER AND PIPING SYSTEMS

Credit Hours: 5

Weekly Contact Hours: Lecture - 2.5 Lab - 7.5

Pre-requisite(s): None

Co-requisite(s): None

This course provides instruction in the fundamentals of safely operating hydraulic, pneumatic, and pump and piping systems. Theory and practical application concepts are discussed. Topics include hydraulic system principles and components, pneumatic system principles and components, and the installation, maintenance, and troubleshooting of pump and piping systems.

Quarter Course Equivalency: IDS 221 and IDS 231

IDSY 1210 - INDUSTRIAL MOTOR CONTROLS II

Credit Hours: 5

Weekly Contact Hours: Lecture - 2.5 Lab - 7.5

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the theory and practical application for two-wire control circuits, advanced motor controls, and variable speed motor controls. Emphasis is placed on circuit sequencing, switching, and installation, maintenance, and troubleshooting techniques.

Quarter Course Equivalency: IDS 115 and IDS 121 and IDS 131

IDSY 1220 - INTERMEDIATE INDUSTRIAL PLC'S

Credit Hours: 5

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): None

Co-requisite(s): None

This course provides for hands on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated equipment. Topics include data manipulation, math instructions, introduction to HMI, analog control, and troubleshooting discrete IO devices.

Quarter Course Equivalency: (IDS 101 and IDS 142) or (IDS 107 and IDS 142)

IDSY 1230 - INDUSTRIAL INSTRUMENTATION

Credit Hours: 5

Weekly Contact Hours: Lecture - 5 Lab - 7.5

Pre-requisite(s): None

Co-requisite(s): None

Provides instruction in the principles and practices of instrumentation for industrial process control systems with an emphasis on industrial maintenance techniques for production equipment. Topics include: instrument tags; process documentation; basic control theory; sensing pressure, flow, level, and temperature; instrument calibration; and loop tuning.

Quarter Course Equivalency: IDS 209

MAST 1010 - LEGAL AND ETHICAL CONCERNS IN THE MEDICAL OFFICE

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the basic concept of medical assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical assistant's role as an agent of the physician. Provides the student with knowledge of medical jurisprudence and the essentials of professional behavior. Topics include: introduction to medical assisting; introduction to medical law; physician/patient/assistant relationship; medical office in litigation; as well as ethics, bioethical issues and HIPAA.

Quarter Course Equivalency: MAS 101

MAST 1030 - PHARMACOLOGY IN THE MEDICAL OFFICE

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): MATH 1012, Program Admission

Co-requisite(s): None

Introduces medication therapy with emphasis on safety; classification of medications; their actions; side effects; medication and food interactions and adverse reactions. Also introduces basic methods of arithmetic used in the administration of medications. Topics include: introductory pharmacology; dosage calculation; sources and forms of

medications; medication classification; and medication effects on the body systems.

Quarter Course Equivalency: MAS 103

MAST 1060 - MEDICAL OFFICE PROCEDURES

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Emphasizes essential skills required for the medical practice. Topics include: office protocol, time management, appointment scheduling, medical office equipment, medical references, mail services, medical records, and professional communication.

Quarter Course Equivalency: MAS 106

MAST 1080 - MEDICAL ASSISTING SKILLS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): ALHS 1011, ALHS 1090, Program Admission

Co-requisite(s): None

Introduces the skills necessary for assisting the physician with a complete history and physical in all types of medical practices. The course includes skills necessary for sterilizing instruments and equipment and setting up sterile trays. The student also explores the theory and practice of electrocardiography. Topics include: infection control and related OSHA guidelines; prepare patients/assist physician with age and gender-specific examinations and diagnostic procedures; vital signs/mensuration; medical office surgical procedures and electrocardiography.

Quarter Course Equivalency: MAS 108

MAST 1090 - MEDICAL ASSISTING SKILLS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 8

Pre-requisite(s): ALHS 1011, ALHS 1090, Program Admission

Co-requisite(s): None

Further student knowledge of the more complex activities in a physician's office. Topics include: collection/examination of specimens and CLIA regulations/risk management; urinalysis; venipuncture; hematology and chemistry evaluations; advanced reagent testing (Strep Test, HcG etc); administration of medications; medical office emergency procedures and emergency preparedness; respiratory evaluations; principles of IV administration; rehabilitative therapy procedures; principles of radiology safety and maintenance of medication and immunization records.

Quarter Course Equivalency: MAS 109

MAST 1100 - MEDICAL INSURANCE MANAGEMENT

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): ALHS 1011, ALHS 1090, COMP 1000, ENGL 1010, Program Admission

Co-requisite(s): None

Emphasizes essential skills required for the medical practice. Topics include: managed care, reimbursement, and coding.

Quarter Course Equivalency: MAS 110

MAST 1110 - ADMINISTRATIVE PRACTICE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): ALHS 1011, ALHS 1090, COMP 1000, ENGL 1010

Co-requisite(s): None

Emphasizes essential skills required for the medical practice in the areas of computers and medical transcription. Topics include: medical transcription/electronic health records; application of computer skills; integration of medical terminology; accounting procedures; and application of software.

Quarter Course Equivalency: MAS 111

MAST 1120 - HUMAN PATHOLOGICAL CONDITIONS IN THE MEDICAL OFFICE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission, BUSN 2300 or ALHS 1090

Co-requisite(s): None

Provides fundamental information concerning common diseases and disorders of each body system. For each system, the disease or disorder is highlighted including: description, etiology, signs and symptoms, diagnostic procedures, treatment, management, prognosis, and prevention. Topics include: introduction to disease and diseases of body systems.

Quarter Course Equivalency: MAS 112 or HIT 195

MAST 1170 - MEDICAL ASSISTING EXTERNSHIP

Credit Hours: 6

Weekly Contact Hours: Lecture - 0 Lab - 18

Pre-requisite(s): MAST 1090

Co-requisite(s): MAST 1180

Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical office job setting. This clinical practicum allows the student to become involved in a work setting at a professional level of technical application and requires concentration, practice, and follow-through. Topics

include: application of classroom knowledge and skills and functioning in the work environment.

Quarter Course Equivalency: MAS 117

MAST 1180 - MEDICAL ASSISTING SEMINAR

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MAST 1090

Co-requisite(s): MAST 1170

Seminar focuses on job preparation and maintenance skills and review for the certification examination. Topics include: letters of application, resumes, completing a job application, job interviews, follow-up letter/call, letters of resignation and review of program competencies for employment and certification.

Quarter Course Equivalency: MAS 118

MAST 1510 - MEDICAL BILLING AND CODING I

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): ALHS 1011, ALHS 1090, ENGL 1010

Co-requisite(s): None

Provides an introduction to medical billing and coding skills with applications of international coding standards for billing of health care services. Topics include: International Classification of Diseases, code book formats, guidelines and conventions, and coding techniques.

Quarter Course Equivalency: MAS 151

MAST 1520 - MEDICAL BILLING AND CODING II

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 4

Pre-requisite(s): MAST 1510

Co-requisite(s): MAST 1530

This course is a continuance of MAST 1510 Medical Billing and Coding I. MAST 1520 topics include: medical records coding techniques; coding linkage and compliance; third-party reimbursement issues; and ethics in coding including fraud and abuse.

Quarter Course Equivalency: MAS 152

MAST 1530 - MEDICAL PROCEDURAL CODING

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): MAST 1510

Co-requisite(s): MAST 1520

Provides the knowledge and skills to apply the coding of procedures for billing purposes using the Physicians Current Procedural Terminology (CPT) manual. Topics include: format of CPT manual, CPT manual coding guidelines, and coding using the CPT manual.

Quarter Course Equivalency: MAS 153

MATH 0090 – LEARNING SUPPORT MATHEMATICS

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Placement Test Score

Co-requisite(s): None

This course uses the modular approach to emphasize in-depth arithmetic skills, basic and intermediate algebra skills. Topics include number theory, whole numbers, fractions, decimals, percents, ratio/proportion, measurement, geometry, application problems, introduction to real numbers, algebraic expressions, solving linear equations, graphs of linear equations, polynomial operations, polynomial factoring, inequalities, rational expressions and equations, linear graphs, slope, systems of equations, radical expressions and equations, and quadratic equations, and applications involving previously listed topics.

Previous Semester Course Equivalency: MATH 0096 and MATH 0097 and MATH 0098 and MATH 0099

MATH 1011 - BUSINESS MATHEMATICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Diploma Level Math Scores OR MATH 0097 w/ a “C” or better

Co-requisite(s): None

Emphasizes mathematical concepts found in business situations. Topics include basic mathematical skills, mathematical skills in business related problem solving, mathematical information for documents, graphs, and mathematical problems.

Quarter Course Equivalency: MAT 1011 or MAT 111

MATH 1012 - FOUNDATIONS OF MATHEMATICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Diploma Level Math Scores or MATH 0097 w/ a “C” or better

Co-requisite(s): None

Emphasizes the application of basic mathematical skills used in the solution of occupational and technical problems. Topics include fractions, decimals, percents, ratios and proportions, measurement and conversion, geometric concepts, technical applications, and basic statistics.

Quarter Course Equivalency: MAT 1012 or MAT 101

MATH 1013 - ALGEBRAIC CONCEPTS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Placement Test Score or MATH 0098 w/ a “C” or better

Co-requisite(s): None

Emphasizes concepts and operations which are applied to the study of algebra. Topics include basic mathematical

concepts, basic algebraic concepts, and intermediate algebraic concepts.

Quarter Course Equivalency: MAT 1013 or MAT 103

MATH 1100 - QUANTITATIVE SKILLS AND REASONING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Math Scores

Co-requisite(s): None

Emphasizes algebra, statistics, and mathematics of finance. Topics include fundamental operations of algebra, sets and logic, probability and statistics, geometry, mathematics of voting and districting, and mathematics of finance.

Quarter Course Equivalency: MAT 1100 or MAT 196

MATH 1101 - MATHEMATIC MODELING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Math Scores

Co-requisite(s): None

Emphasizes functions using real-world applications as models. Topics include fundamental concepts of algebra; functions and graphs; linear, quadratic, polynomial, exponential, and logarithmic functions and models; systems of equations; and optional topics in algebra.

Quarter Course Equivalency: MAT 1101 or MAT 190

MATH 1111 - COLLEGE ALGEBRA

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Math Scores

Co-requisite(s): None

Emphasizes techniques of problem solving using algebraic concepts. Topics include fundamental concepts of algebra, equations and inequalities, functions and graphs, and systems of equations; optional topics include sequences, series, and probability or analytic geometry.

Quarter Course Equivalency: MAT 1111 or MAT 191

MATH 1112 - COLLEGE TRIGONOMETRY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MATH 1111 w/ a "C" or better

Co-requisite(s): None

Emphasizes techniques of problem solving using trigonometric concepts. Topics include trigonometric functions, properties of trigonometric functions, vectors and triangles, inverse of trigonometric functions and graphing of trigonometric functions, logarithmic and exponential functions, and complex numbers.

Quarter Course Equivalency: MAT 1112 or MAT 193

MATH 1113 - PRECALCULUS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MATH 1111 w/ a "C" or better

Co-requisite(s): None

Prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay.

Quarter Course Equivalency: MAT 1113 or MAT 194

MATH 1127 - INTRODUCTION TO STATISTICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Math Scores

Co-requisite(s): None

Emphasizes the concepts and methods fundamental to utilizing and interpreting commonly used statistics. Topics include descriptive statistics, basic probability, discrete and continuous distributions, sampling distributions, hypothesis testing chi square tests, and linear regression.

Quarter Course Equivalency: MAT 1127

MATH 1131 - CALCULUS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): MATH 1113 w/ a "C" or better

Co-requisite(s): None

Topics include the study of limits and continuity, derivatives, and integrals of functions of one variable. Applications are incorporated from a variety of disciplines. Algebraic, trigonometric, exponential, and logarithmic functions are studied.

Quarter Course Equivalency: MAT 1131

MCMT 1011 - INTRODUCTION TO MACHINE TOOL

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 4

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the fundamental concepts and procedures necessary for the safe and efficient use of basic machine tools. Topics include: machine shop safety, terminology, use of hand and bench tools, analysis of measurements, part layout, horizontal and vertical band saw setup and operation, drill press setup and operation, and quality control.

Quarter Course Equivalency: MCH 101

MCMT 1012 - BLUEPRINT FOR MACHINE TOOL

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the fundamental concepts necessary to develop blueprint reading competencies, interpret drawings, and produce sketches for machine tool applications. Topics include interpretation of blueprints, sketching, sectioning, geometric dimensioning and tolerancing, and assembly drawings.

Quarter Course Equivalency: MCH 102 and MCH 114

MCHT 1013 - MACHINE TOOL MATH

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): MATH 1012 and Provisional Admission

Co-requisite(s): None

This course develops mathematical competencies as applied to machine tool technology. Emphasis is placed on the use of machining formulas by incorporating algebraic, geometric, and trigonometric functions. Topics include machining algebra and geometry, applied geometry, and applied trigonometry.

Quarter Course Equivalency: MCH 104 and MCH 105

MCHT 1017 - CHARACTERISTICS OF METALS/ HEAT TREATMENT I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces the properties of various metals, production methods, and identification of ferrous and non-ferrous metals. Topics include: heat treatment safety, metallurgy principles and heat treatment of metals.

Quarter Course Equivalency: MCH 107

MCHT 1020 - HEAT TREATMENT & SURFACE GRINDING

Credit Hours: 3

Weekly Contact Hours: Lecture – 2 Lab – 3

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides instruction in the setup, operations, maintenance, and assembly operations of surface grinders. Introduces the properties of various metals, production methods, and identification of ferrous and non-ferrous metals. Topics include: heat treatment safety, metallurgy principles, heat treatment of metals, surface grinders, surface grinder maintenance, surface grinder setup, surface grinder operations, and safety.

Quarter Course Equivalency: New

MCHT 1030 - APPLIED MEASUREMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): MCHT 1011, MCHT 1013

This course is designed to develop skills necessary for the use and analysis of measurement for Machine Tool Technology and other industrial purposes. Topics include the use of non-precision measuring instruments, use of precision measuring instruments, use of comparison gauges, and analysis of measurements.

Quarter Course Equivalency: MCH 103

MCHT 1060 - WELDING FOR MACHINE TOOL

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces basic welding skills necessary for use in machine tool applications. Topics include: arc welding and gas welding.

Quarter Course Equivalency: MCH 106

MCHT 1119 - LATHE OPERATIONS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides opportunities for students to develop skill in the setup and operation of metal cutting lathes. Topics include: safety, lathes parts and controls, lathe tooling and tool bit grinding, lathe calculations, lathe setup and operations.

Quarter Course Equivalency: MCH 109

MCHT 1120 - MILL OPERATIONS I

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides instruction in the setup and use of the milling machine. Topics include: safety, milling machines, milling machine setup, and milling machine operations.

Quarter Course Equivalency: MCH 115

MCHT 1219 - LATHE OPERATIONS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides further instruction for students to develop skill in the use of lathes. Topics include: lathes, lathe setup, lathe operations, and safety.

Quarter Course Equivalency: MCH 110

MCHT 1220 - MILL OPERATIONS II

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5
Pre-requisite(s): None
Co-requisite(s): None
Provides further instruction for students to develop skills in the use of milling machines. Topics include: safety, advanced milling calculation, advanced milling machine setup and operations.
Quarter Course Equivalency: MCH 116

MGMT 1100 - PRINCIPLES OF MANAGEMENT

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
Develops skills and behaviors necessary for successful supervision of people and their job responsibilities. Emphasis will be placed on real life concepts, personal skill development, applied knowledge and managing human resources. Course content is intended to help managers and supervisors deal with a dramatically changing workplace being affected by technology changes, a more competitive and global market place, corporate restructuring and the changing nature of work and the workforce. Topics include: Understanding the Managers Job and Work Environment; Building an Effective Organizational Culture; Leading, Directing, and the Application of Authority; Planning, Decision-Making, and Problem-Solving; Human Resource Management, Administrative Management, Organizing, and Controlling.
Quarter Course Equivalency: MSD 100 or MKT 101

MGMT 1105 - ORGANIZATIONAL BEHAVIOR

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
Provides a general knowledge of the human relations aspects of the senior-subordinate workplace environment. Topics include: employee relations principles, problem solving and decision making, leadership techniques to develop employee morale, human values and attitudes, organizational communications, interpersonal communications, and employee conflict.
Quarter Course Equivalency: MSD 101

MGMT 1110 - EMPLOYMENT RULES AND REGULATIONS

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
Develops a working knowledge of the laws of employment necessary for managers. Topics include: Employment Law, the Courts, Alternative Dispute Resolution (ADR),

Discrimination Law, Selecting Applicants Under the Law, OSHA and Safety, Affirmative Action, At-Will Doctrine, Right to Privacy, Fair Labor Standards Act (FLSA), Family Medical Leave Act (FMLA), Workers Compensation, Unemployment Compensation, and National Labor Relations Act.
Quarter Course Equivalency: MSD 102

MGMT 1115 - LEADERSHIP

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
This course familiarizes the student with the principles and techniques of sound leadership practices. Topics include: Characteristics of Effective Leadership Styles, History of Leadership, Leadership Models, The Relationship of Power and Leadership, Team Leadership, The Role of Leadership in Effecting Change.
Quarter Course Equivalency: MSD 103

MGMT 1120 - INTRODUCTION TO BUSINESS

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
This course is designed to provide the student with an overview of the functions of business in the market system. The student will gain an understanding of the numerous decisions that must be made by managers and owners of businesses. Topics include: the market system, the role of supply and demand, financial management, legal issues in business, employee relations, ethics, and marketing.
Quarter Course Equivalency: MSD 112

MGMT 1125 - BUSINESS ETHICS

Credit Hours: 3
Weekly Contact Hours: Lecture - 3 Lab - 0
Pre-requisite(s): Provisional Admission
Co-requisite(s): None
Provides students with an overview of business ethics and ethical management practices with emphasis on the process of ethical decision-making and working through contemporary ethical dilemmas faced by business organizations, managers and employees. The course is intended to demonstrate to the students how ethics can be integrated into strategic business decisions and can be applied to their own careers. The course uses a case study approach to encourage the student in developing analytical, problem-solving, critical thinking and decision-making skills. Topics include: An overview of business ethics; moral development and moral reasoning; personal values, rights, and responsibilities; frameworks for ethical decision-making in business; justice and economic distribution; corporations

and social responsibility; corporate codes of ethics and effective ethics programs; business and society: consumers and the environment; ethical issues in the workplace; business ethics in a global and multicultural environment; business ethics in cyberspace; and business ethics and the rule of law.

Quarter Course Equivalency: MSD 113

MGMT 1135 - MANAGERIAL ACCOUNT AND FINANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

The focus of this course is to acquire the skills and concepts necessary to use accounting information in managerial decision making. Course is designed for those who will use, not necessarily prepare, accounting information. Those applications include the use of information for short and long term planning, operational control, investment decisions, cost and pricing products and services. An overview of financial accounting and basic concepts of finance provides an overview of financial statement analysis.

Quarter Course Equivalency: MSD 109

MGMT 2115 - HUMAN RESOURCE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course is designed as an overview of the Human Resource Management (HRM) function and of the manager and supervisors role in managing the career cycle from organizational entry to exit. It acquaints the student with the authority, responsibility, functions, and problems of the human resource manager, with an emphasis on developing familiarity with the real world applications required of employers and managers who increasingly are in partnership with HRM generalists and specialists in their organizations. Topics include: strategic human resource management, contemporary issues in HRM: ethics, diversity and globalization; the human resource/supervisor partnership; human resource planning and productivity; job description analysis, development, and design: recruiting, interviewing, and selecting employees; performance management and appraisal systems; employee training and development: disciplinary action and employee rights; employee compensation and benefits; labor relations and employment law; and technology applications in HRM.

Quarter Course Equivalency: MSD 104

MGMT 2120 - LABOR MANAGEMENT RELATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides a student with an overview of the relationship of rank and file employees to management in business organizations. The nature of the workplace, the economic foundations of work organizations, and the history of the relationship between management and labor is examined. The course acquaints the student with the principles of developing positive relationships between management and labor within the context of the legal environment governing labor relations. Topics include: the nature of the American workplace; the economic history of business organizations, the historical roots of labor-management relations; adversarial and cooperative approaches to labor relations; the legal framework of labor relations; employee-employer rights; collective bargaining and union organizing processes; union and nonunion grievance procedures; international labor relations; and the future of labor-management relations in a changing economy. Case studies, readings, and role-plays are used to simulate workplace applications in labor relations.

Quarter Course Equivalency: MSD 105

MGMT 2125 - PERFORMANCE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Develops an understanding of how fostering employer/employee relationships in the work setting improves work performance. Develops legal counseling and disciplinary techniques to use in various workplace situations. . Topics include: the definitions of coaching, counseling, and discipline; importance of the coaching relationship; implementation of an effective counseling strategy; techniques of effective discipline; and performance evaluation techniques.

Quarter Course Equivalency: MSD 106

MGMT 2130 - EMPLOYEE TRAINING AND DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Addresses the challenges of improving the performance and career potential of employees, while benefiting the student in their own preparation for success in the workplace. The focus is on both training and career and personal development. Shows the student how to recognize when training and development is needed and how to plan, design, and deliver an effective program of training for employees. Opportunities are provided for the student to develop their own career plans, assess their work-related

skills, and practice a variety of skills desired by employers. Topics include: developing a philosophy of training; having systems approach to training and development; the context of training; conducting a needs analysis; critical success factors for employees: learning principles; designing and implementing training plans; conducting and evaluating training; human resource development and careers; personal career development planning; and applications in interpersonal relationships and communication.

Quarter Course Equivalency: MSD 107

MGMT 2135 - MANAGEMENT COMMUNICATION TECHNIQUES

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): COMP 1000

Emphasizes developing the full range of communication strategies required to become a successful manager and prepares managers for the skills required to communicate effectively in business today. Topics include: Organizational/Strategic Communication, Interpersonal Communication, Presentation Techniques, Presentation Technology & Applications, Team/Group Communication, Intercultural Communication, External Stakeholder Communication and Using Spreadsheet Applications for Business Problem Solving.

Quarter Course Equivalency: MSD 114

MGMT 2140 - RETAIL MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Develops a working knowledge of managing a retail business from a variety of perspectives with an emphasis on store management. The emphasis is on contemporary issues in retailing, particularly the process of supervising customer service and dealing with the changing demographics of retailing. An application focus on the use of information technologies, the internet, and electronic retailing is intended to give the student hands-on experience in retail management. Topics include: strategic retail management; store, non-store, and nontraditional retailing; retail human resource management; developing a customer-focused service strategy; managing customer service; retail operations and financial management; merchandise management; buying and inventory management; global, cataloging, and electronic retail management, information technology applications in retailing.

Quarter Course Equivalency: MSD 115

MGMT 2145 - BUSINESS PLAN DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides students with knowledge and skills necessary for a manager or entrepreneur to develop and implement a business plan. Topics include: business/community compatibility, introduction to cash flow and break even analysis, development of product/service idea, determination of market feasibility, determination of financial feasibility, development of marketing strategy, development of operations outline, and application of financial concepts.

Quarter Course Equivalency: MSD 116

MGMT 2150 - SMALL BUSINESS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

This course introduces the essentials of starting, managing, and growing a small business. Topics include: the role of the entrepreneur, pricing, advertising, financing, and layout of facilities, inventory control, staffing, purchasing, vendor selection, and relevant laws affecting small business.

Quarter Course Equivalency: MSD 117

MGMT 2200 - PRODUCTION/OPERATIONS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides the student with an intensive study of the overall field of production/operations management. Topics include: role of production management/production managers, operational design, capacity planning, aggregate planning, inventory management, project management, and quality control/assurance.

Quarter Course Equivalency: MSD 202

MGMT 2205 - SERVICE SECTOR MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course focuses on supervision in the service sector with special emphasis on team building, quality management, and developing a customer focus. The challenge of providing world-class customer service is addressed through sections on principles of service industry supervision, career development, problem solving, stress management, and conflict resolution. Topics include: principles of service industry supervision, team building, customer service operations, TQM in a service environment, business software applications, communication in the service sector,

introduction to information systems, selling principles and sales management, retail management, and legal issues in the service sector.

Quarter Course Equivalency: MSD 205

MGMT 2210 - PROJECT MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides a basic understanding of project management functions and processes. Topics include: team selection and management; project planning, definition and scheduling of tasks; resource negotiation, allocation, and leveling; project control, monitoring, and reporting; computer tools for project planning and scheduling; managing complex relationships between project team and other organizations; critical path methodology; and total quality management.

Quarter Course Equivalency: MSD 206

MGMT 2215 - TEAM PROJECT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course utilizes team methodologies to study the field of management. It encourages students to discuss their perception of management practices which have been studied during the management program. Topics include: current issues and problems in management and supervision and state-of-the-art management and leadership techniques.

Students will be put into teams, will work on team projects to demonstrate their understanding of the competencies of this course, and will do peer evaluation. Potential team projects could include authoring a management book covering the competencies, videos, web sites, bulletin boards, and slide presentations amongst others.

Quarter Course Equivalency: MSD 210

MGMT 2220 – MANAGEMENT OCCUPATIONAL-BASED INSTRUCTIONS

Credit Hours: 3

Weekly Contact Hours: Lecture – 0 Lab – 9

Pre-requisite(s): Program Admission

Co-requisite(s): ENGL 1010, MGMT 1100

Reinforcement of management, supervision, and employability principles in an actual job placement or through a practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management and supervisory applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of management and supervisory techniques, and professional development. The

occupation-based instruction is implemented through the use of a practicum or internship and all of the following: written individualized training plans, written performance evaluation, and a required weekly seminar.

Quarter Course Equivalency: New

MKTG 1100 - PRINCIPLES OF MARKETING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course emphasizes the trends and the dynamic forces that affect the marketing process and the coordination of the marketing functions. Topics include effective communication in a marketing environment, role of marketing, knowledge of marketing principles, marketing strategy, and marketing career paths.

Quarter Course Equivalency: MKT 100

MKTG 1130 - BUSINESS REGULATIONS AND COMPLIANCE

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the study of contracts and other legal issues and obligations for businesses. Topics include: creation and evolution of laws, court decision processes, legal business structures, sales contracts, commercial papers, Uniform Commercial Code, and risk-bearing devices.

Quarter Course Equivalency: MKT 103

MKTG 1160 - PROFESSIONAL SELLING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces professional selling skills and processes. Topics include: professional selling, product/sales knowledge, customer analysis/relations, selling process, sales presentations, and ethics of selling.

Quarter Course Equivalency: MKT 106

MKTG 1161 - SERVICE INDUSTRY BUSINESS ENVIRONMENT

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the learner to the service industry. Topics include: an introduction to the service industry business environment, an introduction to life-long learning, work ethic and positive behavior required for exceptional

customer service, an introduction to customer relations, working together successfully on teams, and basic business principles.

Quarter Course Equivalency: MKT 161

MKTG 1162 - CUSTOMER CONTACT SKILLS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): None

Co-requisite(s): MKTG 1161

This course provides students with skills necessary to communicate with customers and successfully manage that relationship in both telephone and face-to-face situations.

Topics include: skills to effectively communicate with customers, developing rapport with customers, problem-solving in customer service, telephone skills, sales skills in the service environment, managing the difficult customer, and managing the multicultural customer. Computer-Based Training (CBT) is used to allow students to practice skills using simulated business situations.

Quarter Course Equivalency: MKT 162

MKTG 1163 - COMPUTER SKILLS FOR CUSTOMER SERVICE

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): MKTG 1162

Co-requisite(s): None

Provides students with the fundamentals of computer skills used in a customer service environment. Topics include: introduction to computer technology, introduction to the Windows environment, introduction to word processing, introduction to spreadsheets, introduction to databases and introduction to E-mail.

Quarter Course Equivalency: MKT 163

MKTG 1164 - BUSINESS SKILLS FOR THE CUSTOMER

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): MKTG 1163

Co-requisite(s): None

Provides students with the fundamentals of basic business skills used in the customer service environment. Topics include: introduction to business correspondence, basic business calculations, change management, managing multiple tasks and priorities, and tolls for team problem-solving and service improvement.

Quarter Course Equivalency: MKT 164

MKTG 1165 - PERSONAL EFFECTIVENESS IN CUSTOMER SERVICE

Credit Hours: 1

Weekly Contact Hours: Lecture - 1 Lab - 0

Pre-requisite(s): MKTG 1164

Co-requisite(s): None

Provides students with skills that will allow them to present a positive image to both co-workers and customers. Topics include: personal wellness and stress management, positive image, and job interview skills.

Quarter Course Equivalency: MKT 165

MKTG 1190 - INTEGRATED MARKETING COMMUNICATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the fundamental principles and practices associated with promotion and communication. Topics include: purposes of promotion and IMC, principles of promotion and Integrated Marketing Communication (IMC), budgeting, regulations and controls, media evaluation and target market selection, integrated marketing plans, trends in promotion, and promotion and communication career paths.

Quarter Course Equivalency: MKT 108

MKTG 1210 - SERVICES MARKETING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the marketing skills required in a service business. Topics include: foundation of services marketing, managing service delivery/encounters, services marketing strategy, and aligning strategy service design, and standards.

Quarter Course Equivalency: MKT 208

MKTG 1270 - VISUAL MERCHANDISING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course focuses on the components of the visual merchandising of goods and services. Topics include: design and color principles, tools and materials of the trade, lighting and signs, installation of displays, store planning, safety, and related areas of visual merchandising and display.

Quarter Course Equivalency: MKT 109

MKTG 1370 - CONSUMER BEHAVIOR

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course analyzes consumer behavior and applicable marketing strategies. Topics include: the nature of consumer behavior, influences on consumer behavior, consumer decision-making process, role of research in understanding consumer behavior, and marketing strategies.

Quarter Course Equivalency: New

MKTG 2000 - INTERNATIONAL MARKETING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MKTG 1100

Co-requisite(s): None

This course introduces opportunities and international strategies employed in the global marketplace. Topics include: the environment of international marketing, analyze international marketing opportunities, international market entries, design an international marketing strategy, and career paths in international marketing.

Quarter Course Equivalency: MKT 210

MKTG 2010 - SMALL BUSINESS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces competencies required in managing a small business. Topics include: nature of small business management, business management and organizational change, marketing strategies, employee relations, financial planning, and business assessment and growth.

Quarter Course Equivalency: MKT 123

MKTG 2060 - MARKETING CHANNELS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

Emphasizes the design and management of marketing channels. Topics include: role of marketing channels, channel design and planning, supply chain management, logistics, and managing marketing channels.

Quarter Course Equivalency: New

MKTG 2070 - BUYING AND MERCHANDISING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

Develops buying and merchandising skills required in retail or e-business. Topics include: principles of merchandising,

inventory control, merchandise plan, assortment planning, buying merchandise, and pricing strategies.

Quarter Course Equivalency: MKT 122

MKTG 2090 - MARKETING RESEARCH

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MKTG 1100

Co-requisite(s): None

This course conveys marketing research methodology. Topics include: role of marketing research, marketing research process, ethics in marketing research, research design, collection data analysis, reporting, application of marketing research, and marketing research career paths.

Quarter Course Equivalency: New

MKTG 2210 - ENTREPRENEURSHIP

Credit Hours: 6

Weekly Contact Hours: Lecture - 6 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

This course provides an overview of the steps in establishing a business. A formal business will be created. Topics include planning, location analysis, financing, developing a business plan, and entrepreneurial ethics and social responsibility.

Quarter Course Equivalency: MKT 110

MKTG 2270 - RETAIL OPERATIONS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Instructor Approval or Program Admission

Co-requisite(s): None

This course emphasizes the planning, staffing, leading, organizing, and controlling management functions in a retail operation. Topics include: the retailing environment, retailing strategy, supply chain management, financial planning, financial strategies, employee relations, and career paths in retailing.

Quarter Course Equivalency: MKT 125

MKTG 2280 - SPORTS MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MKTG 1280

Co-requisite(s): None

This course emphasizes leadership and management in the sports marketing industry. Topics include: leadership, budgeting, project management, event management, contract negotiation, and international sports marketing.

Quarter Course Equivalency: New

MKTG 2290 - MARKETING INTERNSHIP/ PRACTICUM

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): MKTG 1100

Co-requisite(s): None

This course applies and reinforces marketing and employability skills in an actual job placement or practicum experience. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of marketing skills, and professional development.

Quarter Course Equivalency: MKT 130 or MKT 131 or MKT 134 or MKT 135

MKTG 2300 - MARKETING MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): MKTG 1100

Co-requisite(s): None

This course reiterates the program outcomes for marketing management through the development of a marketing plan. Topics include: the marketing framework, the marketing plan, and preparing a marketing plan for a new product.

Quarter Course Equivalency: MKT 228

MKTG 2500 - EXPLORING SOCIAL MEDIA

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission, MKTG 1100

Co-requisite(s): None

This course explores the environment and current trends of social media as it relates to marketing functions. Topics include: history of the internet and social media, social media dashboards, legal issues of social media, outsourcing vs. in-house administration, and the current social media ecosystem including applications in the following areas: communication, collaboration/authority building, multimedia, reviews and opinions, and entertainment.

Quarter Course Equivalencies: New

MKTG 2550 - ANALYZING SOCIAL MEDIA

Credit Hours: 3

Weekly Contact Hours: Lecture – 1 Lab - 3

Pre-requisite(s): MKTG 1100

Co-requisite(s): MKTG 2500

This course analyzes the application of social media to an integrated marketing communication plan. Topics include technical writing for social media, social media auditing, Social Media ROI, trend analysis, social media analytics, and Customer Experience Management(CEM).

Quarter Course Equivalencies: New

MSNR 1005 - INTRODUCTION MASONRY AND BRICK LAYING

Credit Hours: 4

Weekly Contact Hours: Lecture - 1 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

This course provides an orientation to the masonry field and places importance on practices necessary for general safety, use of tools, materials, and equipment. Basic bricklaying skills are emphasized and practiced to ensure competency. Topics include safety procedures, materials equipment needed, materials estimation, mortar mixing, butter brick and block, and cut masonry units.

Quarter Course Equivalency: MSN 100 and MSN 101

MUSC 1101 - MUSIC APPRECIATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): ENGL 1101

Explores the analysis of well-known works of music, their compositions, and the relationship to their periods. An introduction to locating, acquiring, and documenting information resources lays the foundation for research to include the creative and critical process, the themes of music, the formal elements of composition, and the placing of music in the historical context. Topics include historical and cultural development represented in musical arts.

Quarter Course Equivalency: MUS 1101 or MUS 191

NAST 1100 - NURSE AIDE FUNDAMENTALS

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 5

Pre-requisite(s): Program Admission

Co-requisite(s): ALHS 1011, ALHS 1040, ALHS 1060, ALHS 1090

Introduces student to the role and responsibilities of the Nurse Aide. Emphasis is placed on understanding and developing critical thinking skills, as well as demonstrating knowledge of the location and function of human body systems and common disease processes; responding to and reporting changes in a residents /patients condition, nutrition, vital signs; nutrition and diet therapy; disease processes; vital signs; observing, reporting and documenting changes in a residents condition; emergency concerns; ethics and legal issues and governmental agencies that influence the care of the elderly in long term care settings; mental health and psychosocial well-being of the elderly; use and care of mechanical devices and equipment; communication and interpersonal skills and skills competency based on federal guidelines. Specific topics include: roles and responsibilities of the Nurse Aide; communication and interpersonal skills; topography, structure, and function of the body systems;

injury prevention and emergency preparedness; residents rights; basic patient care skills; personal care skills; and restorative care.

Quarter Course Equivalency: AHS 104 and CNA 100

OPHD 1010 - INTRODUCTION TO OPHTHALMIC OPTICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Introduces students to the eye-care field and the profession of Opticianry. Emphasis is placed on the scope of activities performed by opticians. Topics include: scope and practice of a licensed optician; eye-care professions; major divisions of Opticianry; basic ocular anatomy; light and refraction; vision problems; corrective lenses; and national and state regulations.

Quarter Course Equivalency: OPD 101

OPHD 1020 - EYE ANATOMY AND PHYSIOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Develops students' knowledge of the anatomy and physiology of the eye. Emphasis is placed on the corneal metabolism and its accommodation of a contact lens. Topics include: anatomy of the eye; physiology of the eye; eye diseases and abnormalities; anterior and posterior segments; drugs and treatment methods; and ophthalmic terminology.

Quarter Course Equivalency: OPD 102

OPHD 1030 - APPLIED OPTICAL THEORY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): OPHD 1010, Program Admission

Co-requisite(s): None

Introduces students to properties of light and the laws of geometrical optics. Emphasis is placed on understanding major theories of light and the principles of plane and curved surfaces of mirrors and lenses. Topics include: light and vision; refraction; lens modified light; and lens systems.

Quarter Course Equivalency: OPD 103

OPHD 1060 - OPTICAL LABORATORY TECHNIQUE I

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 6

Pre-requisite(s): OPHD 1010, Provisional Admission

Co-requisite(s): None

Introduces students to the operations involved in lens fabrication. Emphasis is placed on gaining knowledge

of equipment requirements and developing surfacing and finishing techniques. Topics include: safety and environmental procedures and lens processing terminology; lens surfacing and finishing equipment; lens blank selection and layout; lens surfacing techniques; lens finishing techniques; lens final insertion and mounting techniques; and standard alignment, inspection of lenses and lensometer operation.

Quarter Course Equivalency: OPD 106

OPHD 1070 - OPTICAL LABORATORY TECHNIQUE II

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 6

Pre-requisite(s): OPHD 1060

Co-requisite(s): None

This course continues students' study of lens fabrication. Emphasis is placed on using specialized lens materials and multifocal surfacing and finishing techniques. Topics include: specialized lens fabrication; multifocal lens positioning; inspection of multifocal lenses; optical calculations; frame repairs; optical equipment maintenance; advanced optical calculations, and high index lenses.

Quarter Course Equivalency: OPD 107

OPHD 1080 - CONTACT LENS I

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 5

Pre-requisite(s): OPHD 1020, Program Admission

Co-requisite(s): None

Introduces students to the contact lens field. Emphasis is placed on the development of contact lenses to correct visual defects, types of contact lenses, and consumer selection. Topics include: safety and environmental procedures; contact lens history; contact lens instruments; contact lens terminology; corneal topography; lens types, prefitting evaluation, examination and patient/lens selection; adverse effects of lens wear; lens selection, inspection and verification; fitting guidelines and regulations; and follow-up care.

Quarter Course Equivalency: OPD 108 and OPD 111

OPHD 1200 - OPHTHALMIC DISPENSING

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 4

Pre-requisite(s): OPHD 1010, OPHD 1020, OPHD 1030

Co-requisite(s): None

The course will present the fundamentals, terminology and practical procedures used in determining the powers of corrective lenses in relation to a patient's refractive error. Emphasis will be placed on the theory and use of the phoropter, retinoscope and automated refraction instruments.

Problems associated with changes in refractive powers will be discussed and demonstrated.

Quarter Course Equivalency: OPD 120

OPHD 2090 - FRAME SELECTION

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 5

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces students to frame selection and dispensing techniques. Emphasis is placed on gaining clinical experience in providing service to the eyewear consumer. Topics include: ocular measurements; frame selection; frame materials; eyewear fitting techniques; frame adjustment; administrative procedures; lens finishing; matching frames to consumer needs; managed care terminology; information technology; communication with consumers, prescribers, and suppliers; effective consumer services; and problem solving.

Quarter Course Equivalency: OPD 109 and OPD 114

OPHD 2120 - LENS SELECTION

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 5

Pre-requisite(s): OPHD 1010, Provisional Admission

Co-requisite(s): None

This course introduces students to techniques of ophthalmic sales and emphasizes effective consumer service. Topics include: managed care terminology; information gathering; information technology; communicating with consumers, prescribers and suppliers; ophthalmic sales skills; effective consumer services and problem solving; and lens finishing. This course continues students' study of eyewear dispensing techniques. Emphasis is placed on gaining clinical experience in providing service to the eyewear consumer. Topics include: prescription lens materials; lens positioning; multifocal lenses; absorptive lenses; special lens coatings; prescription lens selection; lens finishing; use and care of eyewear; matching lenses to consumer needs; optical, physiological, and psychological problems; applied lensmeter techniques; information gathering; and ophthalmic sales skill.

Quarter Course Equivalency: OPD 112 and OPD 114

OPHD 2130 - CONTACT LENS II

Credit Hours: 5

Weekly Contact Hours: Lecture - 3 Lab - 5

Pre-requisite(s): OPHD 1080, Program Admission

Co-requisite(s): None

This course continues students' study of contact lenses with emphasis on rigid and gas permeable trial and prescriptive lens fitting techniques. Topics include: lens selection; inspection and verification; fitting guidelines and regulations; follow-up care; soft lens care and storage; fitting specialty

rigid lenses; rigid lens care and storage; and fitting specialty soft contact lenses.

Quarter Course Equivalency: OPD 111 and OPD 113

OPHD 2170 - CONTACT LENS REVIEW

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): OPHD 2130

Co-requisite(s): None

This course continues students study of contact lens dispensing knowledge skills. Emphasis is placed on reviewing types of contact lenses, fitting techniques, and further development of associated skills. Topics include: soft contact lens fitting; hard contact lens fitting; contact lens instrumentation; effective consumer service; and contact lens regulations.

Quarter Course Equivalency: OPD 117

OPHD 2180 - OPTICIANRY REVIEW

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): OPHD 2090, OPHD 2120

Co-requisite(s): None

Continues students' study of ophthalmic dispensing knowledge and skills. Emphasis is placed on reviewing optical theory, laboratory procedures, and further development of associated skills. Topics include: optical laboratory; frames and lenses; dispensing techniques; eyewear sales; and eyewear regulations.

Quarter Course Equivalency: OPD 118

OPHD 2190 - OPTICIANRY OBI

Credit Hours: 5

Weekly Contact Hours: Lecture - 0 Lab - 15

Pre-requisite(s): OPHD 2090, OPHD 2120, OPHD 2130

Co-requisite(s): None

Continues students' study of ophthalmic dispensing techniques. Emphasis is placed on gaining clinical experience in providing service to the ophthalmic consumer. Topics include: special visual problems; contact lenses; analyzing ophthalmic problems; ordering procedures; marketing eyewear; and work attitudes. The occupation-based instruction is implemented through the use of a Practicum or internship and all of the following: written individualized training plans, written performance evaluation, and required weekly seminar.

Quarter Course Equivalency: OPD 119

PARA 1100 - INTRODUCTION TO LAW AND ETHICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Emphasizes the American legal system, the role of the lawyer and legal assistant within that system, and the ethical obligations imposed upon attorneys and legal assistants. Topics include: survey of American jurisprudence, code of professional responsibility and ethics overview, and introduction to areas of law and legal vocabulary.

PARA 1105 – LEGAL RESEARCH AND LEGAL WRITING I

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): ENGL 1101

Co-requisite(s): PARA 1100

Introduces the student to the process of locating statutory, judicial, administrative and secondary sources on both a state and federal level. The student will utilize both print and electronic research resources. Focuses on the application and reinforcement of basic writing skills, familiarizes the student with types of writing typically engaged in by lawyers and legal assistants, and prepares the student for legal writing tasks. The student learns to write business letters as well as advisory documents. Topics include: legal analysis and legal correspondence and composition.

PARA 1110 – LEGAL RESEARCH AND LEGAL WRITING II

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): ENGL 1101, PARA 1100, PARA 1105

Co-requisite(s): None

Builds on competencies acquired in PARA 1102 and continues the process of locating statutory, judicial, administrative and secondary sources on both a state and federal level. The student will conduct a wider range of research in both print and electronic research resources. Emphasis will be placed on preparation of legal documents. Criminal case documents will be examined, but most of the emphasis will be on civil matters. The student will be presented factual scenarios, and utilizing these facts, research and develop a case from intake to trial.

PARA 1115 – FAMILY LAW

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): PARA 1100

Introduces the student to the issues which may arise in family law cases and to the role of the paralegal in assisting the attorney in the development and presentation of such cases. Topics include: issues associated with client and witness interviews, marriage validity and dissolution, litigation support in family law matters, issues concerning

children, special matters in family law, and attorney and paralegal ethical obligations.

PARA 1120 – REAL ESTATE LAW

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): PARA 1100

Introduces the student to the basic concepts of real property law as they pertain to common types of real estate transactions. Additionally, emphasis will be placed on practical skills such as document preparation and title examination. Topics include: real estate contracts, plat reading and legal descriptions, types and purposes of deeds, title searches, common real estate mortgages and documentation, real estate closing and closing statements, recordation statutes and requirements, and elements of the lease.

PARA 1125 – CRIMINAL LAW AND CRIMINAL PROCEDURE

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): PARA 1100

Introduces the student to the basic concepts of substantive criminal law and its procedural aspects with an emphasis on the constitutionally protected rights of the accused in the criminal justice system. Topics include: substantive criminal law and procedure and criminal litigation support.

PARA 1130 – CIVIL LITIGATION

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission, PARA 1100

Co-requisite(s): PARA 1100

Emphasizes competencies and concepts of civil litigation in both federal and state courts. Topics include: federal and state litigation; trial and pretrial proceedings; litigation ethics; and litigation documents, exhibits, investigations, and interviews.

PARA 1135 – WILLS, TRUSTS, PROBATE, AND ADMINISTRATION

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): PARA 1100

Provides a general framework of the substantive theory of wills, trusts, and estates. Topics include: wills, trusts, and powers of attorney; probate of wills and administration of estates; document preparation for other probate proceedings;

general jurisdiction of the probate court; terminology of wills and estate practice; client interviews; and document preparation.

PARA 1140 – TORT LAW

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): PARA 1100

Introduces the student to the basic concepts of substantive tort law. Topics include: concepts of intentional torts, negligence and product liability; causation and liability concepts; damages and defenses; and special tort actions and immunities.

PARA 1145 – LAW OFFICE MANAGEMENT

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): PARA 1100

Introduces the student to common forms of law practice. The student will be exposed to methods of billing and time-keeping, automation in the law office, the law office library, the appropriate role of support staff in the law office, and ethical concerns relevant to law office management. Topics include: forms of law practice and insurance needs, support systems, support staff, and ethical responsibilities.

PARA 1150 – CONTRACTS, COMMERCIAL LAW, AND BUSINESS ORGANIZATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission, PARA 1100

Co-requisite(s): PARA 1100

Introduces the student to the basic concepts of legal rules commonly applicable in commercial settings, to the basic concepts of substantive contract law and to the formulation and operation of sole proprietorships, general partnerships, limited partnerships, and corporations. Additionally, the course explores the basic concepts of agency law. Topics include Constitutional law and its impact on business, the essential elements of a contract and related legal principles and the Uniform Commercial Code, sole proprietorships, partnerships, professional associations and other business organizations, corporations and tax implications of different organizations.

PARA 1200 – BANKRUPTCY/DEBTOR-CREDITOR RELATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): PARA 1100

Co-requisite(s): None

Introduces the student to the purpose and application of the Federal Bankruptcy Code and Rules, as well as applicable state law related to bankruptcy and debtor-creditor issues. Topics include: the Bankruptcy Code and Rules, Bankruptcy Court procedures, the preparation of bankruptcy forms and documents, state law workouts and collection, and the role of the paralegal in a bankruptcy practice.

PARA 1205 – CONSTITUTIONAL LAW

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): PARA 1100

Co-requisite(s): None

Explains the major legal principles and concepts of the U.S. Constitution including governmental powers and structure, and civil liberties. Additionally, this course includes an exploration of the history of the Constitution and case law interpreting it.

PARA 1210 – LEGAL AND POLICY ISSUES IN HEALTHCARE

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): PARA 1100

Co-requisite(s): None

Provide an overview of the legal issues involved in the delivery of healthcare and the issues relating to Elder Law. Students will recognize the fundamentals of the healthcare treatment relationship, liability issues, patient care decisions and the human condition of sickness. They will explore the complexities of health care financing, health care access, governmental regulations and privacy issues. Topics will also include access to care, informed consent, patient care decisions, the doctor-patient relationship, end-of-life decision making, legal problems of the elderly, law and mental health, AIDS and the law and the privatization of health care facilities.

PARA 1215 – ADMINISTRATIVE LAW

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Program Admission, PARA 1100

Co-requisite(s): None

Introduces the student to the basic concepts of administrative law including the legislative process related to enabling the agency. The Administrative Procedure Act (federal and state) is covered. Topics also include agency discretion, due process, delegation, rule making, investigation, information collection, informal proceeding, hearings, and judicial review. Because paralegals are permitted to represent individuals in some agency proceedings (e.g., social security, unemployment, etc), the students are introduced to the various aspects of such representation.

PARA 2205 – ADVANCED LEGAL RESEARCH AND WRITING

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): ENGL 1102

Co-requisite(s): None

Continues to develop writing skills developed in PARA 1105 and 1110 focusing on legal memoranda preparation. Additionally, students enhance legal research skill. Course competencies include research methodology, legal memoranda preparation, and substantive law research.

PARA 2210 – PARALEGAL INTERNSHIP I

Credit Hours: 6

Weekly Contact Hours: Lecture – 0 Lab – 0 Lab – 18

Pre-requisite(s): Must be in the last semester of the program of study. With the advisor's approval, student may take concurrently with the last semester courses.

Co-requisite(s): None

Focuses on the application and reinforcement of paralegal skills in an actual workplace environment, or at the discretion of the instructor, in a school practicum with simulated work experiences. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into paralegal applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of paralegal skills in a workplace setting, and professional development.

PARA 2215 – PARALEGAL INTERNSHIP II

Credit Hours: 6

Weekly Contact Hours: Lecture – 0 Lab – 0 Lab – 18

Pre-requisite(s): Must be in the last semester of the program of study. With the advisor's approval, student may take concurrently with the last semester courses.

Co-requisite(s): None

This course continues the focus on the application and reinforcement of paralegal skills in an actual workplace environment, or at the discretion of the instructor, in a school practicum with simulated work experiences. Realistic work situations are used to provide students with insights into paralegal applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of paralegal skills in a workplace setting, and professional development.

PHAR 1000 - PHARMACEUTICAL CALCULATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): MATH 1012 or MATH 1111

Co-requisite(s): None

This course develops knowledge and skills in pharmaceutical calculations procedures. Topics include: systems of measurement, medication dispensing calculations, pharmacy mathematical procedures, and calculation tools and techniques.

Quarter Course Equivalency: PHR 1000 or PHR 100

PHAR 1010 - PHARMACY TECHNOLOGY FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides an overview of the pharmacy technology field and develops the fundamental concepts and principles necessary for successful participation in the pharmacy field. Topics include: safety, orientation to the pharmacy technology field, Fundamental principles of chemistry, basic laws of chemistry, ethics and laws, definitions and terms, and reference sources.

Quarter Course Equivalency: PHR 1010 or PHR 101

PHAR 1020 - PRINCIPLES OF DISPENSING MEDICATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): None

Co-requisite(s): PHAR 1000, PHAR 1010

This course introduces the student to principles of receiving, storing, and dispensing medications. Topics include: purchasing, packaging, and labeling drugs; pharmacy policies and procedures; documentation; inventory and filing systems; compounding; storage and control; pharmacy equipment; and health care organizational structure. This course provides laboratory and clinical practice.

Quarter Course Equivalency: PHR 1020 or PHR 102

PHAR 1030 - PRINCIPLES OF STERILE MEDICATION PREPARATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 3

Pre-requisite(s): PHAR 1000, PHAR 1010

Co-requisite(s): PHAR 1040, PHAR 1050

Continues the development of student knowledge and skills in preparing medication, processing glassware, and maintaining an aseptic environment. Topics include: aseptic and sterile techniques, parenteral admixtures, hyperalimentation, chemotherapy, filtering, disinfecting, contamination, ophthalmic preparations, infection control, and quality control.

Quarter Course Equivalency: PHR 1030 or PHR 103

PHAR 1040 - PHARMACOLOGY

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): PHAR 1030, PHAR 1050

The course introduces the students to principles and knowledge about all classifications of medication.

Topics include: disease states and treatment modalities, pharmaceutical side effects and drug interactions, control substances, specific drugs, and drug addiction and abuse.

Quarter Course Equivalency: PHR 1040 or PHR 104

PHAR 1050 - PHARMACY TECHNOLOGY PRACTICUM

Credit Hours: 5

Weekly Contact Hours: Lecture - 0 Lab - 15

Pre-requisite(s): PHAR 1000, PHAR 1010

Co-requisite(s): PHAR 1030, PHAR 1040

Orients students to the clinical environment and provides experiences with the basic skills necessary for the pharmacy technician. Topics include: storage and control, documentation, inventory and billing, community practice, institutional practice, and communication,

Quarter Course Equivalency: PHR 1050 or PHR 105

PHAR 2060 - ADVANCED PHARMACY TECHNOLOGY PRINCIPLES

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): COMP 1000, PHAR 1030, PHAR 1050

Co-requisite(s): PHAR 2070

This course presents the advanced concepts and principles needed in the pharmacy technology field. Topics include: physician orders, patient profiles, pharmacy data systems, job readiness, legal requirements, inventory and billing, pharmaceutical calculations review and pharmacology review.

Quarter Course Equivalency: PHR 1060

PHAR 2070 - ADVANCED PHARMACY TECHNOLOGY PRACTICUM

Credit Hours: 5

Weekly Contact Hours: Lecture - 0 Lab - 15

Pre-requisite(s): COMP 1000, PHAR 1030, PHAR 1050

Co-requisite(s): PHAR 2060

Continues the development of student knowledge and skills applicable to pharmacy technology practice. Topics include: dispensing responsibilities, physician orders, controlled substances, hyperalimentation, chemotherapy, patient profiles, pharmacy data systems, ophthalmic preparations, and hospital/retail/home health pharmacy techniques.

Quarter Course Equivalency: PHR 1070

PHLT 1030 - INTRODUCTION TO VENIPUNCTURE

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides an introduction to blood collecting techniques and processing specimens. Emphasis is placed on the knowledge and skills needed to collect all types of blood samples from hospitalized patients. Topics include: venipuncture procedure, safety and quality assurance; isolation techniques, venipuncture problems, and definitions; lab test profiles and patient care areas; other specimen collections and specimen processing; test combinations, skin punctures and POCT; professional ethics and malpractice; and certification and licensure.

Quarter Course Equivalency: PHL 103

PHLT 1050 - CLINICAL PRACTICE

Credit Hours: 5

Weekly Contact Hours: Lecture - 0 Lab - 15

Pre-requisite(s): None

Co-requisite(s): PHLT 1030

Provides work experiences in a clinical setting. Emphasis is placed on enhancing skills in venipuncture techniques. Topics include: introduction to clinical policies and procedures and work ethics; routine collections: adult, pediatric, and newborn; and special procedures.

Quarter Course Equivalency: PHL 105

PHYS 1110 - CONCEPTUAL PHYSICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 and (MATH 1101 or MATH 1111) w/ a "C" or better

Co-requisite(s): PHYS 1110L

Introduces some of the basic laws of physics. Topics include systems of units and conversion of units, vector algebra, Newtonian mechanics, fluids and thermodynamics, heat, light, and optics, mechanical waves, electricity and magnetism, and modern physics.

Quarter Course Equivalency: PHY 1110

PHYS 1110L - CONCEPTUAL PHYSICS LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): ENGL 1101 and (MATH 1101 or MATH 1111) w/ a "C" or better

Co-requisite(s): PHYS 1110

Selected laboratory exercises paralleling the topics in PHYS 1110. The laboratory exercises for this course include systems of units and systems of measurement, vector algebra, Newtonian mechanics, fluids and thermodynamics,

heat, light, and optics, mechanical waves, electricity and magnetism, and modern physics.

Quarter Course Equivalency: PHY 1110

PHYS 1111 - INTRODUCTORY PHYSICS I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): ENGL 1101 and (MATH 1112 or MATH 1113) w/ a "C" or better

Co-requisite(s): PHYS 1111L

The first course of two algebra and trigonometry based courses in the physics sequence. Topics include material from mechanics (kinematics, dynamics, work and energy, momentum and collisions, rotational motion, static equilibrium, elasticity theory, and simple harmonic motion), mechanical waves, theory of heat and heat transfer, and thermodynamics.

Quarter Course Equivalency: PHY 1111

PHYS 1111L - INTRODUCTORY PHYSICS I LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): ENGL 1101 and (MATH 1112 or MATH 1113) w/ a "C" or better

Co-requisite(s): PHYS 1111

Selected laboratory exercises paralleling the topics in PHYS 1111. The laboratory exercises for this course include units of measurement, Newton's laws, work energy and power, momentum and collisions, one- and two-dimensional motion, circular motion and law of gravity, rotational dynamics and static equilibrium, elasticity theory, harmonic motion, theory of heat and heat transfer, thermodynamics, wave motion, and sound.

Quarter Course Equivalency: PHY 1111

PHYS 1112 - INTRODUCTORY PHYSICS II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): PHYS 1111, PHYS 1111L w/ a "C" or better

Co-requisite(s): PHYS 1112L

The second of two algebra and trigonometry based courses in the physics sequence. Topics include material from electricity and magnetism (electric charge, electric forces and fields, electric potential energy, electric potential, capacitance, magnetism, electric current, resistance, basic electric circuits, alternating current circuits, and electromagnetic waves), geometric optics (reflection and refraction), and physical optics (interference and diffraction).

Quarter Course Equivalency: PHY 1112

PHYS 1112L - INTRODUCTORY PHYSICS II LAB

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): PHYS 1111, PHYS 1111L w/ a "C" or better

Co-requisite(s): PHYS 1112

Selected laboratory exercises paralleling the topics in PHYS 1112. The laboratory exercises for this course include material from electricity and magnetism, geometric optics, and physical optics.

Quarter Course Equivalency: PHY 1112

PNSG 2010 - INTRODUCTION TO PHARMACOLOGY AND CLINICAL CALCULATIONS

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): Program Admission

Co-requisite(s): PNSG 2030, PNSG 2035

Applies fundamental mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include: systems of measurement, calculating drug problems, resource materials usage, fundamental pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education.

Quarter Course Equivalency: New

PNSG 2030 - NURSING FUNDAMENTALS

Credit Hours: 6

Weekly Contact Hours: Lecture - 4 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): PNSG 2010, PNSG 2035

An introduction to the nursing process. Topics include: nursing as a profession; ethics and law; client care which is defined as using the nursing process, using critical thinking, and providing client education and includes principles and skills of nursing practice, documentation, and an introduction to physical assessment; customer/client relationships; standard precautions; basic life support; infection control/ bloodborne/airborne pathogens; and basic emergency care/ first aid and triage.

Quarter Course Equivalency: New

PNSG 2035 - NURSING FUNDAMENTALS CLINICAL

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): PNSG 2010, PNSG 2030

An introduction to nursing practice in the clinical setting. Topics include but are not limited to: history taking; physical assessment; nursing process; critical thinking; activities of daily living; documentation; client education;

standard precautions; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; and perioperative care.

Quarter Course Equivalency: New

PNSG 2210 - MEDICAL-SURGICAL NURSING I

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): PNSG 2030

Co-requisite(s): PNSG 2010

Focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the cardiovascular, respiratory, and hematological and immunological systems.

Quarter Course Equivalency: New

PNSG 2220 - MEDICAL-SURGICAL NURSING II

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): PNSG 2030

Co-requisite(s): PNSG 2320

This second course in a series of four focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the endocrine, gastrointestinal, and urinary system.

Quarter Course Equivalency: New

PNSG 2230 - MEDICAL-SURGICAL NURSING III

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): PNSG 2030

Co-requisite(s): PNSG 2330

This third course in a series of four focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care

of the individual as a whole; mental health; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the neurological, sensory, and musculoskeletal systems.

Quarter Course Equivalency: New

PNSG 2240 - MEDICAL-SURGICAL NURSING IV

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): PNSG 2030

Co-requisite(s): PNSG 2340

This fourth course in a series of four courses focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole, oncology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the integumentary and reproductive systems.

Quarter Course Equivalency: New

PNSG 2250 - MATERNITY NURSING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): PNSG 2030

Co-requisite(s): PNSG 2255

Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, pathological and nonpathological concerns in obstetric clients and the newborn; client care, treatments, pharmacology, and diet therapy related to obstetric clients and the newborn; and standard precautions.

Quarter Course Equivalency: New

PNSG 2255 - MATERNITY NURSING CLINICAL

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): None

Co-requisite(s): PNSG 2250

Focuses on clinical health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process,

performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, pathological and nonpathological concerns in obstetric clients and the newborn; client care, treatments, pharmacology, and diet therapy related to obstetric clients and the newborn; and standard precautions.

Quarter Course Equivalency: New

PNSG 2310 - MEDICAL-SURGICAL NURSING CLINICAL I

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): None

Co-requisite(s): PNSG 2210

This first clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

Quarter Course Equivalency: New

PNSG 2320 - MEDICAL-SURGICAL NURSING CLINICAL II

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): None

Co-requisite(s): PNSG 2220

This second clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-

surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

Quarter Course Equivalency: New

PNSG 2330 - MEDICAL-SURGICAL NURSING CLINICAL III

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): None

Co-requisite(s): PNSG 2230

This third clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

Quarter Course Equivalency: New

PNSG 2340 - MEDICAL-SURGICAL NURSING CLINICAL IV

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): None

Co-requisite(s): PNSG 2240

This fourth clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

Quarter Course Equivalency: New

PNSG 2410 - NURSING LEADERSHIP

Credit Hours: 1

Weekly Contact Hours: Lecture - 1 Lab - 0

Pre-requisite(s): PNSG 2030

Co-requisite(s): PNSG 2415

Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of the nursing process, supervisory skills, client education methods, group dynamics and conflict resolution.

Quarter Course Equivalency: New

PNSG 2415 - NURSING LEADERSHIP CLINICAL

Credit Hours: 2

Weekly Contact Hours: Lecture - 0 Lab - 6

Pre-requisite(s): None

Co-requisite(s): PNSG 2410

Builds on the concepts presented in prior nursing courses and develops the clinical skills necessary for successful performance in the job market, focusing on practical applications. Topics include: application of the nursing process, critical thinking, supervisory skills, client education methods, and group dynamics.

Quarter Course Equivalency: New

POLS 1101 - AMERICAN GOVERNMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Emphasizes study of government and politics in the United States. The focus of the course will provide an overview of the Constitutional foundations of the American political processes with a focus on government institutions and political procedures. The course will examine the constitutional framework, federalism, civil liberties and civil rights, public opinion, the media, special interest groups, political parties, and the election process along with the three branches of government. In addition, this course will examine the processes of Georgia state government. Topics include foundations of government, political behavior, and governing institutions.

Quarter Course Equivalency: POL 1101

PSYC 1010 - BASIC PSYCHOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Presents basic concepts within the field of psychology and their application to everyday human behavior, thinking, and emotion. Emphasis is placed on students understanding basic psychological principles and their application within the context of family, work and social interactions. Topics include an overview of psychology as a science, the nervous and sensory systems, learning and memory, motivation and emotion, intelligence, lifespan development, personality, psychological disorders and their treatment, stress and health, and social psychology.

Quarter Course Equivalency: PSY 1010 or PSY 101

PSYC 1101 - INTRODUCTORY PSYCHOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Introduces the major fields of contemporary psychology. Emphasis is on fundamental principles of psychology as a science. Topics include research design, the organization and operation of the nervous system, sensation and perception, learning and memory, motivation and emotion, thinking and intelligence, lifespan development, personality, psychopathology and interventions, stress and health, and social psychology.

Quarter Course Equivalency: PSY 1101 or PSY 191

PSYC 1150 - INDUSTRIAL/ORGANIZATION PSYCHOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Emphasizes interpersonal and behavioral skills required in today's business and industry. Topics include an overview of

industrial/ organizational psychology, principles of human resources management, psychological testing, performance appraisal, training and professional development of employees, principles of leadership, motivational factors, workplace conditions, safety and health, and workplace stressors.

Quarter Course Equivalency: PSY 1150 or PSY 192

PSYC 2103 - HUMAN DEVELOPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): PSYC 1101 w/ a "C" or better

Co-requisite(s): None

Emphasizes changes that occur during the human life cycle beginning with conception and continuing through late adulthood and death and emphasizes the scientific basis of our knowledge of human growth and development and the interactive forces of nature and nurture. Topics include but are not limited to theoretical perspectives and research methods, prenatal development and child birth, stages of development from infancy through late adulthood, and death and dying.

Quarter Course Equivalency: PSY 2103 or PSY 291

PSYC 2250 - ABNORMAL PSYCHOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): PSYC 1101 w/ a "C" or better

Co-requisite(s): None

Emphasize the etiology and treatments consideration of various forms of abnormal behavior. Topics include historical and contemporary approaches to psychopathology; approaches to clinical assessment and diagnosis; understanding and defining classifications and psychological disorders.

Quarter Course Equivalency: PSY 2250 or PSY 201

RADT 1010 - INTRODUCTION TO RADIOLOGY

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 1030, RADT 1320

Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Provides the student with an overview of radiography and patient care. Students will be oriented to the radiographic profession as a whole. Emphasis will be placed on patient care with consideration of both physical and psychological conditions. Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include:

ethics, medical and legal considerations, Right to Know Law, professionalism, basic principles of radiation protection, basic principles of exposure, equipment introduction, health care delivery systems, hospital and departmental organization, hospital and technical college affiliation, medical emergencies, pharmacology/contrast agents, media, OR and mobile procedures patient preparation, death and dying, body mechanics/transportation, basic life support/ CPR, and patient care in radiologic sciences.

Quarter Course Equivalency: RAD 101

RADT 1030 - RADIOGRAPHIC PROCEDURES I

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): BIOL 2114/2114L Program Admission

Co-requisite(s): RADT 1010

Introduces the knowledge required to perform radiologic procedures applicable to the human anatomy. Emphasis will be placed on the production of quality radiographs, and laboratory experience will demonstrate the application of theoretical principles and concepts. Topics include: introduction to radiographic procedures; positioning terminology; positioning considerations; procedures, anatomy, and topographical anatomy related to body cavities, bony thorax, upper extremities, shoulder girdle; and lower extremities.

Quarter Course Equivalency: (RAD 103 and RAD 106) or (RAD 108 and RAD 110)

RADT 1060 - RADIOGRAPHIC PROCEDURES II

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): RADT 1010, RADT 1030

Co-requisite(s): RADT 1330

Continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine projections of the pelvic girdle; anatomy and routine projections of the spine, gastrointestinal (GI) procedures; genitourinary (GU) procedures; biliary system procedures; and minor procedures.

Quarter Course Equivalency: (RAD 106 and RAD 109) or (RAD 108 and RAD 110)

RADT 1070 - PRINCIPLES OF IMAGING I

Credit Hours: 6

Weekly Contact Hours: Lecture - 5 Lab - 2

Pre-requisite(s): MATH 1111, Program Admission

Co-requisite(s): None

Content is designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Factors that govern the image production process, film imaging with related accessories, and a basis for analyzing radiographic

images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis.

Quarter Course Equivalency: RAD 107 and RAD 123

RADT 1160 - PRINCIPLES OF IMAGING II

Credit Hours: 6

Weekly Contact Hours: Lecture - 5 Lab - 2

Pre-requisite(s): RADT 1070

Co-requisite(s): None

Content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-based and digital imaging systems, with a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. This content also provides a basic knowledge of quality control, principles of digital system quality assurance and maintenance are presented. Content is designed to provide entry-level radiography students with principles related to computed tomography (CT) imaging, and other imaging modalities (i.e., MRI, US, NM, Mammography) in terms of purpose, principles, equipment/material, and procedure. Topics include: imaging equipment, digital image acquisition and display, and basic principles of CT and other imaging modalities. Topics include: imaging equipment, digital image acquisition and display, and basic principles of CT and other imaging modalities

Quarter Course Equivalency: RAD 116 and RAD 117

RADT 1200 - PRINCIPLES OF RADIATION BIOLOGY AND PROTECTION

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed. Topics include: radiation detection and measurement; patient protection; personnel protection; absorbed dose equivalencies; agencies and regulations; introduction to radiation biology; cell anatomy, radiation/cell interaction; and effects of radiation.

Quarter Course Equivalency: RAD 120

RADT 1320 - CLINICAL RADIOGRAPHY I

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): None

Co-requisite(s): RADT 1030

Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Topics include: orientation to hospital areas and procedures; orientation to mobile/surgery; orientation to radiography and fluoroscopy; participation in and/or observation of procedures related to body cavities, the shoulder girdle, and upper extremities. Activities of students are under direct supervision.

Quarter Course Equivalency: RAD 132 and RAD 133

RADT 1330 - CLINICAL RADIOGRAPHY II

Credit Hours: 7

Weekly Contact Hours: Lecture - 0 Lab - 21

Pre-requisite(s): RADT 1010, RADT 1030, RADT 1320

Co-requisite(s): RADT 1060

Continues introductory student learning experiences in the hospital setting. Topics include: equipment utilization; exposure techniques; attend to and/or observation of routine projections of the lower extremities, pelvic girdle, and spine; attend to and/or observation of procedures related to the gastrointestinal (GI), genitourinary (GU), and biliary systems; and attend to and/or observation of procedure related to minor radiologic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision.

Quarter Course Equivalency: RAD 133 and RAD 134

RADT 2090 - RADIOGRAPHIC PROCEDURES III

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 3

Pre-requisite(s): RADT 1060

Co-requisite(s): RADT 1330, RADT 2340

Continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine projections of the cranium; anatomy and routine projections of the facial bones; anatomy and routine projections of the sinuses; sectional anatomy of the head, neck, thorax and abdomen.

Quarter Course Equivalency: RAD 113 or (RAD 110 and RAD 112)

RADT 2190 - RADIOGRAPHIC PATHOLOGY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): BIOL 2114/2114L, Program Admission

Co-requisite(s): None

Content is designed to introduce the student to concepts related to disease and etiological considerations. Pathology and disease as they relate to various radiographic procedures are discussed with emphasis on radiographic appearance of disease and impact on exposure factor selection. Topics

include: fundamentals of pathology, trauma/physical injury, and systematic classification of disease.

Quarter Course Equivalency: RAD 119

RADT 2201 - INTRODUCTION TO COMPUTED TOMOGRAPHY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 2220, RADT 2250

Introduces the student to computed tomography and patient care in the CT suite. Topics include: the history of computed tomography, patient care and assessment, anatomy, contrast agents, radiation safety and protection, medical ethics and law, cultural diversity, and patient information management.

Quarter Course Equivalency: RAD 220

RADT 2210 - COMPUTED TOMOGRAPHY PHYSICS AND INSTRUMENTATION

Credit Hours: 5

Weekly Contact Hours: Lecture - 5 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 2230, RADT 2265

Introduces the concepts of basic physics and instrumentation for computed tomography. Topics include: computer concepts, system operation and components, image processing and display, instrumentation, single slice and volume scanning, 3-D volume rendering, image quality and artifacts, radiation protection and quality control.

Quarter Course Equivalency: RAD 221

RADT 2220 - COMPUTED TOMOGRAPHY PROCEDURES I

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 2201, RADT 2250

Provides knowledge CT procedures of the head, chest, abdomen, and pelvis. Topics include: anatomy, pathology, scanning procedures, scanning protocol, contrast administration, and contraindications for computed tomography.

Quarter Course Equivalency: RAD 222

RADT 2230 - COMPUTED TOMOGRAPHY PROCEDURES II

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 2210, RADT 2265

Provides knowledge of anatomy, pathology, scanning protocols, contrast administration, and contraindications for computed tomography of the neck, spine, musculoskeletal

system, and special procedures. Post-processing and quality assurance criteria are addressed. Topics include: anatomy, pathology, scanning protocol, contrast administration and contraindications, post processing and quality assurance,

Quarter Course Equivalency: RAD 223

RADT 2250 - COMPUTED TOMOGRAPHY CLINICAL I

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 2201, RADT 2220

Introduces students to the computed tomography department and provides an opportunity for participation in and observation of CT procedures. Students progress toward completion of clinical competency evaluations. Topics include: exam preparation, patient care, equipment utilization, exposure techniques, evaluation of CT procedures, and incorporation of contrast media.

Quarter Course Equivalency: RAD 225

RADT 2260 - RADIOLOGIC TECHNOLOGY REVIEW

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): RADT 1160, RADT 1200, RADT 2090, RADT 2350

Co-requisite(s): RADT 2360

Provides a review of basic knowledge from previous courses and helps the student prepare for national certification examinations for radiographers. Topics include: image production and evaluation; radiographic procedures; anatomy, physiology, pathology, and terminology; equipment operation and quality control; radiation protection; and patient care and education.

Quarter Course Equivalency: RAD 126

RADT 2265 - COMPUTED TOMOGRAPHY CLINICAL II

Credit Hours: 4

Weekly Contact Hours: Lecture - 0 Lab - 12

Pre-requisite(s): Program Admission

Co-requisite(s): RADT 2210, RADT 2230

Provides students with continued computed tomography work experience. Students demonstrate increased proficiency levels in skills introduced in Computed Tomography Procedures and practiced in the previous clinical course. Students complete clinical competency evaluations.

Topics include: exam preparation, patient care, equipment utilization, exposure techniques, evaluation of CT procedures, and incorporation of contrast media.

Quarter Course Equivalency: RAD 226

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ADT 2340 - CLINICAL RADIOGRAPHY III

Credit Hours: 6

Weekly Contact Hours: Lecture - 0 Lab - 18

Pre-requisite(s): RADT 1330

Co-requisite(s): None

Provides students with continued hospital setting work experience. Students continue to develop proficiency in executing procedures introduced in Radiographic Procedures. Topics include: patient care; behavioral and social competencies; performance and/or observation of minor special procedures, special equipment use, and participation in and/or observation of cranial and facial radiography. Execution of radiographic procedures will be conducted under direct and indirect supervision.

Quarter Course Equivalency: RAD 134 and RAD 135

RADT 2350 - CLINICAL RADIOGRAPHY IV

Credit Hours: 7

Weekly Contact Hours: Lecture - 0 Lab - 21

Pre-requisite(s): RADT 1010, RADT 2090, RADT 2340

Co-requisite(s): None

Provides students with continued hospital setting work experience. Students continue to develop proficiency in executing procedures introduced in Radiographic Procedures. Topics include: sterile techniques; participation in and/or observation of minor special procedures, special equipment use, and genitourinary system procedures; and participation in and/or observation of cranial and facial radiography; and competency completion evaluation. Execution of radiographic procedures will be conducted under direct and indirect supervision..

Quarter Course Equivalency: RAD 136 and RAD 137

RADT 2360 - CLINICAL RADIOGRAPHY V

Credit Hours: 9

Weekly Contact Hours: Lecture - 0 Lab - 27

Pre-requisite(s): RADT 2350

Co-requisite(s): RADT 2260

Provides students with continued hospital setting work experience. Students demonstrate increased proficiency levels in skills introduced in all of the radiographic procedures courses and practiced in previous clinical radiography courses. Topics include: patient care; behavioral and social competency; advanced radiographic anatomy; equipment utilization; exposure techniques; sterile techniques; integration of procedures and/or observation of angiographic, interventional, minor special procedures; integration of procedures and/or observation of special equipment use; integration of procedures and/or observation of routine and special radiographic procedures; and final completion of all required clinical competencies. Execution of radiographic procedures will be conducted under direct and indirect supervision.

Quarter Course Equivalency: RAD 137 and RAD 138

READ 0090 – LEARNING SUPPORT READING

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab – 0

Pre-requisite(s): Placement Test Score

Co-requisite(s): None

This course uses a modular approach to emphasize the strengthening of fundamental reading competencies, vocabulary, comprehension skills, critical reading skills, study skills, and content area reading skills.

Previous Semester Course Equivalency: READ 0096 and READ 0097 and READ 0098

RNSG 1350 - FUNDAMENTALS OF NURSING CARE

Credit Hours: 6

Weekly Contact Hours: Lecture 4, Lab 5

Pre-Requisites: ENGL 1101, COMP 1000, MATH 1111, BIOL 2113, BIOL 2113L, BIOL 2114, BIOL 2114L, w/a “C” or better

Co-Requisite: BIOL 2117, BIOL 2117L, RNSG 1355

This course is designed to introduce the student nurse to professional Nursing, the nursing process, health-promotion, illness-prevention practices, basic care of the adult and older adult population, and the role of the associate degree nurse. The focus of this course is on nursing history, professional organizations, ethical issues and values, cultural diversity, hygiene and safety, infection control and prevention, communication, collaboration, documentation, critical thinking, and patient teaching. The student learns about urinary and bowel elimination, pain management, nutrition, skin integrity and wound care. The student nurse learns correct technique in nursing skills and how to accurately obtain and chart vital signs. This course includes classroom, skills lab, and a clinical rotation. The course must be successfully completed with a minimum grade of 70 percent in theory and a minimum grade of 70 percent in the clinical rotation.

RNSG 1355 - NURSING PHARMACOLOGY AND DOSAGE CALCULATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture 3, Lab 2

Pre-Requisites: ENGL 1101, COMP 1000, MATH 1111, BIOL 2113, BIOL 2113L, BIOL 2114, BIOL 2114L, w/a “C” or better

Co-Requisite: BIOL 2117, BIOL 2117L, RNSG 1350

This course is designed to prepare the student with necessary skills essential to perform accurate medication calculations in the metric system. The student will learn how to competently prepare and administer medications including oral, subcutaneous, intradermal, intramuscular, intravenous formulas and injections, conversions between systems and reconstitution of solutions. Emphasis is placed on knowledge and precision necessary for accuracy in drug calculations.

The student will learn medication classifications, side effects,

adverse reactions, action, peak, route of administration and medication safety. This course includes classroom, and a skills lab. This course must be successfully completed with a minimum theory grade of 70 percent.

RNSG 1360 - PHYSICAL EXAMINATION AND HEALTH ASSESSMENT

Credit Hours: 4

Weekly Contact Hours: Lecture 3, Lab 0

Pre-Requisites: BIOL 2117, BIOL 2117L, RNSG 1350, RNSG 1355 w/a "C" or better

Co-Requisite: PSYC 1101, RNSG 1365

This course introduces the student to physical examinations and health assessment of patients in the clinical environment. The student learns how to perform a therapeutic nurse-patient relationship and how to conduct a head-to-toe assessment including each body system. Emphasis is placed on knowledge and skills necessary for acquiring, organizing, recording and interpreting data from a health promotion perspective. This course includes lecture and a laboratory component. This course must be successfully completed with a minimum grade of 70 percent.

RNSG 1365 - MEDICAL-SURGICAL NURSING I

Credit Hours: 6

Weekly Contact Hours: Lecture 4, Lab 6

Pre-Requisites: BIOL 2117, BIOL 2117L, RNSG 1350, RNSG 1355 w/a "C" or better

Co-Requisite: PSYC 1101, RNSG 1360

This initial medical-surgical course is designed to introduce and prepare the student to care for patients with selected medical disorders and surgical conditions. This course includes classroom, simulation and a clinical rotation which builds on concepts and skills taught in the Fundamentals of Nursing Care course. The role of the nurse as provider of care will be utilized to include patient care, basic clinical decision making, patient teaching, coordination of care, clinical reasoning, and collaboration of care with other disciplines. Specific medications related to health care conditions will be taught. The application of the nursing process in caring for patients experiencing alterations in cardiovascular, endocrine, gastrointestinal, hematologic, musculoskeletal, neurologic, respiratory, and renal systems are included. Infusion therapy is introduced. The student will learn about the perioperative patient. Emphasis is placed on diversity and in care of the elderly considering developmental, cultural and spiritual needs of each patient. This course must be successfully completed with a minimum grade of 70 percent in the theory component and 70 percent in the clinical component.

RNSG 1370 - OBSTETRICAL NURSING AND THE CHILDBEARING FAMILY

Credit Hours: 4

Weekly Contact Hours: Lecture 3, Lab 3

Pre-Requisites: PSYC 1101, RNSG 1360, RNSG 1365 w/a "C" or better

Co-Requisite: PSYC 2103

This course prepares the student to provide clinically competent, compassionate evidenced-based nursing care for the childbearing patient and family. Concepts will be introduced which include normal pregnancy and childbirth, complications in pregnancy and childbirth, care of the newborn, assessment, planning and intervention as well as nutritional care, patient education, health promotion strategies and illness prevention practices for the childbearing family. Pharmacologic principles are incorporated as applies to the obstetrical patient. This course requires supervised clinical rotations in hospital experiences to enhance the educational opportunities. This course requires a minimum grade of 70 percent in theory and a minimum of 70 percent in the clinical rotation.

RNSG 1375 - ESSENTIALS OF PEDIATRIC NURSING

Credit Hours: 4

Weekly Contact Hours: Lecture 3, Lab 3

Pre-Requisites: PSYC 1101, RNSG 1360, RNSG 1365 w/a "C" or better

Co-Requisite: PSYC 2103, RNSG 1370

This course prepares the student to provide safe and culturally competent care for pediatric patients and their family or group members. The student will learn concepts and theories related to developmental stages. Emphasis is placed on disease processes and management, interventions, pharmacology, and critical knowledge skills with care of the child. This course includes classroom, simulation, and a clinical component at to provide educational opportunities to meet course objectives. This course requires a minimum grade of 70 percent in theory and a minimum of 70 percent in the clinical rotation.

RNSG 2350 - MENTAL HEALTH PROMOTION AND RESTORATION

Credit Hours: 4

Weekly Contact Hours: Lecture 3, Lab 3

Pre-Requisites: PSYC 2103, RNSG 1370, RNSG 1375 w/a "C" or better

Co-Requisite: RNSG 2355

This course introduces the student to care for patients across the lifespan with alterations in mental health. The focus is on the nurse-patient therapeutic relationship and behavioral and emotional responses. Emphasis is placed on building the therapeutic relationship, milieu environment, assessment, and psychopharmacology. A project is required in this course which places emphasis on mental illness and variations in

mental health. This course includes classroom, and a clinical rotation at an acute care facility and/or a state hospital. This course requires a minimum grade of 70 percent in theory and a minimum grade of 70 percent in the clinical rotation.

RNSG 2355 - MEDICAL-SURGICAL NURSING II

Credit Hours: 5

Weekly Contact Hours: Lecture 3, Lab 6

Pre-Requisites: PSYC 2103, RNSG 1370, RNSG 1375 w/a "C" or better

Co-Requisite: ENGL 2130 or HUMN 1101, RNSG 2350

This course prepares the student to care for patients with complex medical and multisystem disorders. This course includes classroom, simulation and a clinical rotation which builds on concepts and skills taught in the Medical-Surgical Nursing I course. Specific medications related to health care conditions will be strengthened. The student will learn to apply the application of the nursing process in caring for patients experiencing disorders of the immune system, arthritis, infections, cancer, cardiac disorders and, dysrhythmias, respiratory, neurologic, musculoskeletal trauma, intestinal, pituitary and adrenal glands, renal disease and transplants. The student will learn about advanced infusion therapy. Emphasis is placed on restoration and maintenance of health. Supervised clinical inpatient hospital experiences will provide the student with opportunities to meet course competency outcomes. This course requires a minimum grade of 70 percent in theory and a minimum of 70 percent in the clinical rotation.

RNSG 2360 - MEDICAL-SURGICAL NURSING III

Credit Hours: 4

Weekly Contact Hours: Lecture 2, Lab 6

Pre-Requisites: ENGL 2130 or HUMN 1101, RNSG 2350, RNSG 2355 w/a "C" or better

Co-Requisite: RNSG 2365

This course is the final medical-surgical nursing course. This class builds on previous instruction and includes classroom, skills lab, simulation and a clinical rotation. The student will learn about patients with complex and multisystem disorders. This course prepares the nursing student to acquire knowledge and skills in application of the nursing process to the care for patients with multi-system, emergency and life threatening disorders. This course requires a minimum grade of 70 percent in theory and 70 percent in the clinical rotation.

RNSG 2365 - ESSENTIALS OF NURSING MANAGEMENT AND LEADERSHIP

Credit Hours: 1

Weekly Contact Hours: Lecture 1, Lab 0

Pre-Requisites: ENGL 2130 or HUMN 1101, RNSG 2350, RNSG 2355 w/a "C" or better

Co-Requisite: RNSG 2360

This course is designed to prepare the graduate nurse to function as a role of a leader with management and

leadership skills necessary to promote growth and development in the profession of nursing. This course requires a minimum theory grade of 70%.

SOCI 1101 - INTRODUCTION TO SOCIOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Explores the sociological analysis of society, its culture, and structure. Sociology is presented as a science with emphasis placed on its methodology and theoretical foundations.

Topics include basic sociological concepts, socialization, social interaction and culture, social groups and institutions, deviance and social control, social stratification, social change, and marriage and family.

Quarter Course Equivalency: SOC 1101 or SOC 191

SPCH 1101 - PUBLIC SPEAKING

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): Degree Level Reading and Writing Scores

Co-requisite(s): None

Introduces the student to the fundamentals of oral communication. Topics include selection and organization of materials, preparation and delivery of individual and group presentations, analysis of ideas presented by others, and professionalism.

Quarter Course Equivalency: SPC 1101 or SPC 191

SURG 1010 - INTRODUCTION TO SURGICAL TECHNOLOGY

Credit Hours: 8

Weekly Contact Hours: Lecture - 4 Lab - 10

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides an overview of the surgical technology profession and develops the fundamental concepts and principles necessary to successfully participate on a surgical team. Topics include: introduction to preoperative, intraoperative and postoperative principles of surgical technology; assistant circulator role, professionalism as well as health care facility information.

Quarter Course Equivalency: SUR 101 and SUR 109

SURG 1020 - PRINCIPLES OF SURGICAL TECHNOLOGY

Credit Hours: 7

Weekly Contact Hours: Lecture - 5 Lab - 4

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides continued study of surgical team participation by wound management and technological sciences for the

operating room. Topics include: technological sciences; patient care concepts; preoperative, intraoperative and postoperative surgical technology; and perioperative case management

Quarter Course Equivalency: SUR 102

SURG 1080 - SURGICAL MICROBIOLOGY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the fundamentals of surgical microbiology.

Topics include: historical development of microbiology; microscopes; cell structure and theory; microbial function and classification; human and pathogen relationships, infectious processes and terminology; defense mechanisms; infection control and principles of microbial control and destruction.

Quarter Course Equivalency: SUR 108

SURG 1100 - SURGICAL PHARMACOLOGY

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab - 2

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the fundamentals of intraoperative pharmacology, and emphasizes concepts of anesthesia administration.

Topics include: weights and measurements, drug conversions, interpretation of drug orders, legal aspects of drug administration, intraoperative pharmacologic agents, and anesthesia fundamentals.

Quarter Course Equivalency: SUR 110

SURG 2030 – SURGICAL PROCEDURES I

Credit Hours: 4

Weekly Contact Hours: Lecture –4 Lab – 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Introduces the surgical specialties to include General Surgery, Obstetric and Gynecologic Surgery, Genitourinary Surgery, Otorhinolaryngologic Surgery, and Orthopedic Surgery. Topics for each surgical specialty will include Anatomy and Physiology, Pathophysiology, Diagnostic Interventions, and the Surgical Procedure.

SURG 2040 - SURGICAL PROCEDURES II

Credit Hours: 4

Weekly Contact Hours: Lecture - 4 Lab - 0

Pre-requisite(s): SURG 2030

Co-requisite(s): None

Continues development of student knowledge and skills applicable to specialty surgery areas. Topics include: ophthalmic surgery; thoracic surgery; vascular surgery;

cardiovascular surgery; neurosurgery; and plastic and reconstructive surgery.

Quarter Course Equivalency: SUR 204

SURG 2110 – SURGICAL TECHNOLOGY CLINICAL I

Credit Hours: 3

Weekly Contact Hours: Lecture – 0 Lab – 9

Pre-requisite(s): Program Admission

Co-requisite(s): None

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include, but are not limited to: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation and/or participation in routine procedures for core and specialty surgery. Topics include: general surgery (to include gastrointestinal), cardiothoracic surgery, otorhinolaryngologic surgery (ENT), ophthalmic surgery (Eye), genitourinary surgery, neurological surgery, obstetrical and gynecological surgery, oral and maxillofacial surgery, orthopedic surgery, peripheral vascular surgery, plastic and reconstructive surgery, and procurement/transplant surgery. The total number of cases the student must complete is 120. Students are required to complete 30 cases in the General Surgery specialty. Twenty of the cases must be in the First Scrub Role. Students are required to complete 90 cases in various surgical specialties. Sixty of the cases must be in the First Scrub Role and evenly distributed between a minimum of 5 surgical specialties. However, 15 is the maximum number of cases that can be counted in any one surgical specialty. Diagnostic endoscopy cases and vaginal delivery cases are not mandatory, but up to 10 diagnostic endoscopic cases and 5 vaginal delivery cases can be counted toward the maximum number of Second Scrub Role cases. Cases that are in the Observation role must be documented but do not count towards the minimum of 120 total cases.

Quarter Course Equivalency: New

SURG 2120 - SURGICAL TECHNOLOGY CLINICAL II

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): SURG 1130

Co-requisite(s): None

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical

experience. Emphasis is placed on observation/participation in routine procedures and procedures for core and specialty surgery. Topics include: general surgery, gastrointestinal surgery, obstetrical and gynecological surgery, genitourinary surgery, otorhinolaryngologic surgery, plastic and reconstructive surgery, orthopedic surgery, ophthalmic surgery, oral and maxillofacial surgery, cardiothoracic surgery, peripheral vascular surgery, and neurosurgical procedures. Utilization of minutes allotted to specialty areas are at the discretion of the program.

Quarter Course Equivalency: SUR 213

SURG 2130 - SURGICAL TECHNOLOGY CLINICAL III

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): SURG 1130

Co-requisite(s): None

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation/participation in routine procedures and procedures for core and specialty surgery. Topics include: general surgery, gastrointestinal surgery, obstetrical and gynecological surgery, genitourinary surgery, otorhinolaryngologic surgery, plastic and reconstructive surgery, orthopedic surgery, ophthalmic surgery, oral and maxillofacial surgery, cardiothoracic surgery, peripheral vascular surgery, and neurosurgical procedures. Utilization of minutes allotted to specialty areas are at the discretion of the program.

Quarter Course Equivalency: SUR 213

SURG 2140 - SURGICAL TECHNOLOGY CLINICAL IV

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): SURG 2130

Co-requisite(s): None

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation/participation in routine procedures and procedures for core and specialty surgery. Topics include: general surgery, gastrointestinal surgery, obstetrical and gynecological surgery, genitourinary

surgery, otorhinolaryngologic surgery, plastic and reconstructive surgery, orthopedic surgery, ophthalmic surgery, oral and maxillofacial surgery, cardiothoracic surgery, peripheral vascular surgery, and neurosurgical procedures. Utilization of minutes allotted to specialty areas are at the discretion of the program.

Quarter Course Equivalency: SUR 214

SURG 2240 - SEMINAR IN SURGICAL TECHNOLOGY

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab - 0

Pre-requisite(s): Program Admission

Co-requisite(s): None

Prepares students for entry into careers as surgical technologists and enables them to effectively prepare for the national certification examination. Topics include: professional credentialing, certification review, and test-taking skills.

Quarter Course Equivalency: SUR 224

TELE 1000 – INTRODUCTION TO TELECOMMUNICATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab – 2

Pre-requisite(s): None

Co-requisite(s): None

This course provides a comprehensive overview of telecommunications, identifying components of a telecom network, and the transmission of information, such as data, video, and voice. The fundamental concepts in both analog and digital communications are covered. This is an engineering technology course.

TELE 1010 – U-VERSE SAFETY

Credit Hours: 2

Weekly Contact Hours: Lecture - 1 Lab – 2

Pre-requisite(s): None

Co-requisite(s): None

This course teaches students the skills needed to safely perform all duties of a field technician working and installing carrier grade communications services to homes and businesses. These services include, but are not limited to, triple play offerings such as voice, video, and data/high-speed internet. Topics and labs will include standards and codes, ladder safety, electrical and tool safety. Additionally, students will participate in defensive driving concepts and techniques and complete first aid/CPR certifications.

TELE 1020 – PREMISE CABLING AND INSTALLATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab – 2

Pre-requisite(s): None

Co-requisite(s): TELE 1010

The student will gain the knowledge of copper and fiber transmission characteristics and apply them in hands-on activities. Labs will require students to install, terminate, test, troubleshoot, and repair various media/cabling and the associated blocks or jacks in a home and/or business environment following all applicable codes, standards, employer and manufacturers specifications.

TELE 1030 – IPDSL, GATEWAY SERVICES, AND INSTALLATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab – 2

Pre-requisite(s): None

Co-requisite(s): TELE 1010

This course provides the student with the theoretical and hands-on knowledge and skills to install the NIDs utilized in U-Verse installations. In addition, students will identify and correct faulty components found in the systems.

TELE 1040 – CUSTOMER PROVIDED EQUIPMENT SETUP AND INTEGRATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab – 2

Pre-requisite(s): None

Co-requisite(s): TELE 1010, TELE 1020, TELE 1030

This course is designed to give the student the theoretical knowledge of A/V and other technologies encountered during a typical U-Verse (triple play services) installation. Topics include A/V systems, Alarms, computer equipment, Access Points, etc. In addition, the student will be required to integrate the various technologies into one operational system.

TELE 1050 – CUSTOMER SERVICE AND EMPLOYABILITY SKILLS FOR TECHNICIANS

Credit Hours: 2

Weekly Contact Hours: Lecture - 2 Lab – 0

Pre-requisite(s): None

Co-requisite(s): None

This course provides the understanding of customer service and employability skills needed to obtain a job and provide service in the U-verse marketplace. Topics include resumes, interview techniques, teamwork, customer dissatisfaction and empathy skills, as well as other foundations of providing excellent internal and external customer service.

TELE 1090 - TROUBLESHOOTING AND REPAIR

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

Introduces students to procedures for troubleshooting telephone equipment and lines. Students learn proper testing techniques to use in troubleshooting and to repair various types of telephone equipment. Topics include: troubleshooting procedures, troubleshooting and repair of self-contained key systems, and troubleshooting and repair of communication systems

Quarter Course Equivalency: TEL 109

TELE 1160 - FIBER OPTICS TRANSMISSION SYSTEMS

Credit Hours: 4

Weekly Contact Hours: Lecture - 2.5 Lab - 4.5

Pre-requisite(s): None

Co-requisite(s): None

Introduces the fundamentals of fiber optics and explores the applications of fiber optics transmission systems. Laboratory exercises give students hands-on experience with fiber optic devices. Topics include: introduction to optical fiber principles, types of optical fiber, characteristics of optical fiber, factors contributing to fiber losses, fiber optic systems, installation and maintenance of fiber optic systems, fusion/quick connect splicing, and terminations.

Quarter Course Equivalency: TEL 116

TELE 1210 – COMMUNICATIONS TRANSMISSION CONCEPTS

Credit Hours: 4

Weekly Contact Hours: Lecture - 3 Lab – 2

Pre-requisite(s): ECET 1101

Co-requisite(s): None

Introduction to the communications network transmission concepts. Topics include: Signal analysis and mixing, multiplexing, methods of modulation and detection, characteristics of metallic and optical transmission media. The effects of noise in communications systems are investigated. This is an engineering technology course.

TELE 1690 - CATV FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): None

Upon completion of the course a student will understand the fundamentals of cable television systems and high-speed data and telephony over cable. This course provides the basis for further study of cable television and broadband systems. Topics include: general organization of cable TV systems, TV transmission plans and equipment, TV signal characteristics and processing, and basic analysis of TV picture quality and problems

Quarter Course Equivalency: TEL 169

TELE 1700 - BROADBAND CABLE INSTALLATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): TELE 1690

Introduces the basics of coaxial cable installation from the initial site survey to installing cable and making connections. Through extensive laboratory activities, students will perform the basic tasks of a coaxial cable installer. Including but not limited to site survey, cable pulling, cable connections, cable distribution systems, and premise connections.

Quarter Course Equivalency: TEL 170

TELE 1720 - BROADBAND SYSTEM INSTALLATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): TELE 1700

Upon completion the student will understand and perform the following: the installation, testing, and repair of simple and complex broadband systems. The student will be involved in extensive laboratory activities giving practical hands-on experience with various broadband equipment and systems. Topics include: installing customer drops, setting up and configuring cable access units (set-top boxes), TV sets, VCRs and other customer broadband and equipment.

Quarter Course Equivalency: TEL 172

TELE 2020 - COMMUNICATION CABLING INSTALLATION

Credit Hours: 4

Weekly Contact Hours: Lecture - 2.5 Lab - 4.5

Pre-requisite(s): None

Co-requisite(s): None

This course is designed for the entry-level telecommunications technicians who need to understand the industry and be proficient in the basic practices used in a structured cabling and installation environment. Topics include identification of industry structure, standards, codes and methodologies; media characteristics; preparation for installation, connectors, grounding and bonding, testing, pulling and termination of cable; cable splicing; fire stopping; administration; professionalism; selection and maintenance of tools; delivery and inventory of equipment; and interpretation of symbols and specifications.

Quarter Course Equivalency: TEL 202

TELE 2090 - VOICE OVER IP FUNDAMENTALS

Credit Hours: 3

Weekly Contact Hours: Lecture - 3 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course introduces the fundamentals of voice over IP (VoIP) telephony and technology, the infrastructure benefits and applications. Topics include Public Switch Telephone Network (PSTN), telephony signaling and services, basics of Internet Protocol (IP), H.323, Session Initiation Protocol (SIP), gateway protocols, and Quality of Service (QoS).

Quarter Course Equivalency: TEL 209

TELE 2110 - COMMUNICATION PLATFORMS

Credit Hours: 3

Weekly Contact Hours: Lecture - 1.5 Lab - 3

Pre-requisite(s): None

Co-requisite(s): TELE 2020

This course is designed to give students an overview of the different types of communication platforms used primarily in inter-connects as well as the business systems component of service providers. Emphasis is placed on system features, installation, programming, and troubleshooting.

Quarter Course Equivalency: TEL 211

TELE 2130 - TELECOMMUNICATIONS PROJECT

Credit Hours: 1

Weekly Contact Hours: Lecture - 0 Lab - 3

Pre-requisite(s): TELE 1160

Co-requisite(s): None

This course is designed for students to undertake both individual and team tasks and apply knowledge acquired from classroom and lab activities. Students will design and implement an advanced communications network.

Quarter Course Equivalency: TEL 213

TELE 2210 – DATA COMMUNICATIONS

Credit Hours: 4

Weekly Contact Hours: Lecture – 3 Lab –2

Pre-requisite(s): ECET 1210, TELE 1000

Co-requisite(s): None

Cover the principles of data communications and areas of applications such as communications between terminals and computers, including local area networks, packet networks, and control of the telephone network. Topics include: introduction to data communications, transmission of bandwidths and impairments, transmission codes, modem installation, function of multiplexers, function of protocols, error detection and correction techniques, and networks identification. This is an engineering technology course.

TELE 2230 – FIBER OPTICS

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): TELE 1210

Co-requisite(s): None

Course examines the fiber optics communications technology, and explores the applications of fiber optics transmission systems. This course discussed the optical fiber, LEDs, Laser diodes, photodiodes, optical amplifiers and passive components, Laboratory exercises give students hands-on experience with fiber optic devices, troubleshooting and measuring tools, fusion/quick connect splicing, and terminations. This is an engineering technology course.

TVPT 2525 - WRITING FOR BROADCAST

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): None

Students will be introduced to writing formats for news, promotion, press releases, commercial television and radio productions and dramatic screenplays. Emphasis will be placed on correct writing styles and conceptualization for each application. Students will adapt an existing work to create an original script for the screen.

Quarter Course Equivalency: New

WELD 1000 - INTRODUCTION TO WELDING TECHNOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): Provisional Admission

Co-requisite(s): None

Provides an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards.

Quarter Course Equivalency: WLD 100

WELD 1010 - OXYFUEL CUTTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): None

Co-requisite(s): WELD 1000

Introduces fundamental principles, safety practices, equipment, and techniques necessary for metal heating and oxyfuel cutting. Topics include: metal heating and cutting principles, safety procedures, use of cutting torches and apparatus, metal heating techniques, metal cutting techniques, manual and automatic oxyfuel cutting

techniques, and oxyfuel pipe cutting. Practice in the laboratory is provided.

Quarter Course Equivalency: WLD 101

WELD 1030 - BLUEPRINT READING FOR WELDING TECHNOLOGY

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): None

Co-requisite(s): WELD 1000

This course introduces the knowledge and skills necessary for reading welding and related blueprints and sketches. An emphasis is placed on identifying types of welds, and the associated abbreviations and symbols.

Quarter Course Equivalency: WLD 103 and WLD 108

WELD 1040 - FLAT SHIELDED METAL ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): WELD 1000

This course introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in flat positions. Qualification tests, flat position, are used in the evaluation of student progress toward making industrial welds.

Quarter Course Equivalency: WLD 104

WELD 1050 - HORIZON SHIELDED METAL ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): WELD 1040

Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the horizontal position. Qualification tests, horizontal position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: horizontal SMAW safety and health practices, selection and applications of electrodes, selection and applications for horizontal SMAW, horizontal SMAW joints, and horizontal SMAW to specification.

Quarter Course Equivalency: WLD 105

WELD 1060 - VERTICAL SHIELDED METAL ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): WELD 1040, WELD 1050

Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the vertical position. Qualification tests, vertical position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: vertical SMAW safety and health practices, selection and applications of electrodes for vertical SMAW, vertical SMAW joints, and vertical SMAW to specification.

Quarter Course Equivalency: WLD 106

WELD 1070 - OVERHEAD SHIELDED METAL ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): WELD 1060

Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the overhead position. Qualification tests, overhead position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: overhead SMAW safety and health practices, selection and applications of electrodes for overhead SMAW, overhead SMAW joints, and overhead SMAW to specification.

Quarter Course Equivalency: WLD 107

WELD 1090 - GAS METAL ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): WELD 1000

Provides knowledge of theory, safety practices, equipment and techniques required for successful gas metal arc welding. Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standard welds. Topics include: GMAW safety and health practices; GMAW theory, machines, and set up; transfer modes; wire selection; shielded gas selection; and GMAW joints in all positions.

Quarter Course Equivalency: WLD 109

WELD 1110 - GAS TUNGSTEN ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): None

Co-requisite(s): WELD 1000

Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful gas tungsten arc welding. Qualification tests, all positions, are used in the evaluating of student progress toward making industrial standard welds. Topics include: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and set up; selection of filler rods; GTAW weld positions; and production of GTAW beads, bead patterns, and joints.

Quarter Course Equivalency: WLD 110

WELD 1120 - PREPARATION FOR INDUSTRIAL QUALIFICATION

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): WELD 1040, WELD 1070, WELD 1090, WELD 1110

Co-requisite(s): None

Introduces industrial qualification methods, procedures, and requirements. Students are prepared to meet the qualification criteria of selected national welding codes and standards.

Topics include: test methods and procedures, national industrial codes and standards, fillet and groove weld specimens, and preparation for qualifications and job entry.

Quarter Course Equivalency: WLD 112

WELD 1150 - ADVANCED GAS TUNGSTEN ARC WELDING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 5

Pre-requisite(s): WELD 1000

Co-requisite(s): None

Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful advanced gas tungsten arc welding (GTAW). Qualification tests, all positions, are used in the evaluation of student progress toward making advanced level industrial standard welds. Topics include: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and equipment set up; selection of filler rods; GTAW weld positions; and advanced production of GTAW beads, bead patterns, and joints.

Quarter Course Equivalency: WLD 150

WELD 1151 - FABRICATION PROCESSES

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 2

Pre-requisite(s): WELD 1030

Co-requisite(s): None

Presents practices common in the welding and metal fabrication industry. Topics include: metal fabrication safety and health practices and metal fabrication procedures.

Quarter Course Equivalency: WLD 151

WELD 1152 - PIPE WELDING

Credit Hours: 3

Weekly Contact Hours: Lecture - 1 Lab - 6

Pre-requisite(s): Program Admission

Co-requisite(s): None

Provides the opportunity to apply skills to pipe welding operations. Topics include: pipe welding safety and health practices, pipe welding nomenclature, pipe layout and

preparation, pipe joint assembly, horizontal welds on pipe (2G), vertical welds on pipe (5G), and welds on 45 degree angle pipe (6G).

Quarter Course Equivalency: WLD 152

WELD 1153 - FLUX CORED ARC WELDING

Credit Hours: 4

Weekly Contact Hours: Lecture - 2 Lab - 5

Pre-requisite(s): WELD 1000

Co-requisite(s): None

Provides knowledge of theory, safety practices, equipment, and techniques required for successful flux cored arc welding (FCAW). Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standards welds. Topics include: FCAW safety and health practices, FCAW theory, machine set up and operation, shielded gas selection, and FCAW joints in all positions.

Quarter Course Equivalency: WLD 153

WELD 1154 - PLASMA CUTTING

Credit Hours: 3

Weekly Contact Hours: Lecture - 2 Lab - 3

Pre-requisite(s): WELD 1000

Co-requisite(s): None

Provides knowledge of theory, safety practices, equipment, and techniques required for plasma cutting. Topics include: safety practices; plasma torch and theory; plasma machine set up and operation; and plasma cutting techniques.

Quarter Course Equivalency: WLD 154

WELD 1500 - WELDING & JOINING INTERNSHIP

Credit Hours: 3

Weekly Contact Hours: Lecture - 0 Lab - 9

Pre-requisite(s): None

Co-requisite(s): None

Provides additional skills application in an industrial setting through a cooperative agreement among industry, the Welding Joining Technology program, and the student to furnish employment in a variety of welding occupations. Emphasizes student opportunities to practice welding skills in a hands on situation and to work in an industrial environment under the supervision of a master welding technician. Supplements and complements the courses taught in the Welding and Joining Technology program. Topics include: application of welding and joining skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance.

Quarter Course Equivalency: WLD 160

WLET 1100 – WIRELESS REGULATORY STANDARDS, CODES, AND OPERATING PROCEDURES

Credit Hours: 2

Weekly Contact Hours: Lecture – 2 Lab - 0

Pre-requisite(s): None

Co-requisite(s): None

This course is designed to give students the knowledge concerning the various regulations, standards, codes, and operating procedures related to the wireless environment. Topics include federal agencies such as the FCC, FAA, FDA, and OSHA. In addition, the NEC, 3GPP, IEEE, and ANSI codes and standards are researched, as well as, the importance of abiding by the organizations standard operating procedures.

WLET 1110 - POWER AND GROUNDING SYSTEMS IN A MOBILE ENVIRONMENT

Credit Hours: 3

Weekly Contact Hours: Lecture – 2 Lab – 2

Pre-requisite(s): ECET 1101

Co-requisite(s): None

This course provides both the theoretical and practical skills and knowledge required by a field tech/engineer to successfully install and maintain a grounding and power system infrastructure at a mobile site. Topics include codes and standards that are applicable, installation procedures, testing methods, preventative maintenance, troubleshooting and repair, and reporting processes based on Standard Operation Procedures (SOPs).

WLET 1120 - MOBILE SITE MEDIA AND APPLICATIONS

Credit Hours: 3

Weekly Contact Hours: Lecture – 2 Lab – 2

Pre-requisite(s): ECET 1101

Co-requisite(s): ECET 2101

This course is designed to provide the student with the theoretical and hands-on knowledge and skills needed to install and maintain the cabling infrastructure in a mobile-site environment. Topics include safety cabling practices, copper and fiber terminations, tests, and repairs.

WLET 2100 - ANTENNA FUNDAMENTALS AND APPLICATIONS IN MOBILE CONSTRUCTION

Credit Hours: 3

Weekly Contact Hours: Lecture – 2 Lab – 2

Pre-requisite(s): ECET 1101, ECET 2101

Co-requisite(s): WLET 1120

This course provides the student the foundational knowledge needed to understand electromagnetic wave propagation and the skills needed to safely choose and install the proper antenna based on the application. Topics will include

electromagnetic frequencies, signal propagation, RF safety, radiation patterns, codes and standards related to antennas, installation practices, and troubleshooting.

WLET 2110 - MOBILE TRANSMISSION AND TRANSPORT TECHNOLOGIES

Credit Hours: 3

Weekly Contact Hours: Lecture – 3 Lab - 0

Pre-requisite(s): ECET 1101, ECET 2101, WLET 1120

Co-requisite(s): ECET 2120

The course is designed to give the student a working knowledge of the theory and technologies generally found in mobile communications. Topics include the electromagnetic spectrum and transmission theory on copper, fiber, and air interfaces using electrical, light, and RF signals. Backhaul technologies are also discussed to give the student an understanding of how the mobile network is intertwined with switching offices and other nodes.

WLET 2120 - MOBILE TECHNOLOGIES AND EQUIPMENT

Credit Hours: 3

Weekly Contact Hours: Lecture – 2 Lab – 2

Pre-requisite(s): WLET 1120, WLET 2110

Co-requisite(s): CIST 2451

This course is designed to give the student a working knowledge of a complete mobile site including the radio equipment, ancillary equipment and other equipment and interfaces needed to commission a site and maintain a site. Topics include both theory and hands-on based exercises that allow a student to perform the duties of field technician/engineer.